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The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta June 14th, 1946

VOLUME 86

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E R R A T A

Volume 85, Page 6851, line 14 et seq should read as follows:-

THE CHAIRMAN: My present view is that a static rate base is the proper thing, that is my present view, Mr. Harvie.

MR.HARVIE: We will not disagree with your present view then because it is our submission that it should be that.

VOLUME 86

Friday,
June 14th, 1946.

MR. McDONALD: Mr. Chairman, yesterday when we closed I had been dealing with the submission made by Mr. Zinder with regard to elasticity of demand in the consumer market of Calgary for gas, and I had referred to the evidence, the conclusion that he had reached with regard to domestic, commercial and industrial classifications. And then I asked at page 4946, (Volume 63), I asked Mr. Zinder if he could express an opinion as to the price to which gas could be raised in Calgary before it became competitive with coal and his statement is this:

"Based upon this study, it would be my opinion that the price of gas for domestic use might be increased to as much as 33 cents or even higher without appreciably affecting the total use of gas, particularly for heating for domestic service. For commercial use, my opinion would be that the price might be increased to that level or perhaps a bit higher and with the same expected conclusion, that the total volume of use per customer would not vary materially."

And then Mr. Steer interjected:

"By "that level" you mean 33 cents?"

And Mr. Zinder states:

"Yes," the 33 cents. "With regard to industrial use, I do not know that I can express an opinion. I think that would require a little more detailed study of this classification of customers. My general conclusion would be that some increase would be possible

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WORKING BY
SELECT
June 24th, 1949.

Mr. MORPHETT: Mr. Chairman, everybody knows the attitude I had been treating with the application made by Mr. Adamson with regard to electricity. I feared an air monopoly because of delivery day and I had insisted to the witnesses that consumers shall be had regard with respect to dumping material and industrial electricity. And when I looked at page 1004, (volume 3), I noted Mr. Simpson if he could approve an option as to the price to be paid for be yielded to delivery both of power consumers with some and the statement to those.

Based upon this option, it would be my opinion that the price of gas for domestic use might be increased to as much as 38 cents or even higher without seriously affecting the total use of gas, particularly for heating for domestic service. For commercial use, the option would see that the price might be increased to that level or perhaps a little higher and with the same general conditions, even the total volume of use per customer would not vary materially.

Mr. Simpson intervened:

"Why what level you mean 38 cents?"

And Mr. Morphett stated:

"Why 38 cents. With regard to industrial use, I do not know that I can say that on opinion. I think it would require a little more information as to the original price of the option on gas. My general opinion would be that some increase would be possible

"and that is based, as I stated here, largely on the relationship of Rate Number 4, which is shown on Chart No. 3, and when the price of coal is competitive, the price of coal on an equivalent basis adjusted for efficiency. How much and at what point of use the rate may be increased to this class of customer without affecting consumption, I am not prepared to say."

I submit, Mr. Chairman, that Mr. Zinder is positive in regard to the two first classifications but he could not arrive at a definite conclusion in regard to the third, but said there is in respect to some proportion of the customers room for an increase.

THE CHAIRMAN: My recollection is that the 33 cents was the domestic rate.

MR. McDONALD: Domestic and commercial. Mr. Steer brought that out by his interjection.

Mr. Zinder was cross-examined at very considerable length and I do think his cross-examination emphasized some points. At page 5033 (Volume 63) Mr. Zinder emphasized that besides the question of raising the price, there are many other features which influence the elasticity of demand such as temperature, depression, value of money and general conditions in the vicinity in which the gas is sold.

At page 5038, he emphasized the view that with prices back at the 1939 figure and when coal prices were higher than in 1939, gas would still be sold in comparable quantities. In other words if we returned to the 33 cent price as at this date, with coal prices higher than they were in 1939, his view would be that

there would be no loss in total consumption by the consumer.

THE CHAIRMAN: There is no evidence is there, Mr. McDonald, with relation to the point of saturation or the degree of saturation of gas used in Calgary when the price was 33 cents as compared with the percentage of saturation when the price was 25 cents?

MR. McDONALD: Yes, in Mr. Zinder's statement that I read into the record yesterday, he points out that the saturation in 1939 when the price was 33 cents was approximately 87% in domestic and in the same neighbourhood in the commercial and with the lowering of the price he points out that the saturation has not changed hardly at all. That is deductable from the Exhibit, from the schedule to his submission, I think it is Schedule 4. I will check it.

THE CHAIRMAN: It does not matter, Mr. McDonald. If the evidence is there I will discover it sooner or later.

MR. McDONALD: That is Appendix No. 2 to Mr. Zinder's submission in regard to elasticity. I think I have some further references in Mr. Brownie's evidence to that point which I will be noting for you.

Mr. Zinder also filed Exhibit 138 showing sales, total sales broken down into classes and the average rate received by the Gas Company from 1921 to 1944. He points out that between 1921 and 1922, sales went down 9½% with an increase of 26½% in the average rate. But revenue actually went up 15%. As between 1920 and 1924 the average domestic rate increased from 35.02 to 46 cents, which is an increase of 35% but the sales in that period actually increased 44% and the revenue of the company actually increased by 90%. Now Mr. Zinder refers to this fact because

it illustrates that there are many other factors which influence the relationship between consumption besides price itself. I think it is fair to point out that during that period from 1921 to 1924 there was a state of uncertainty of supply and the affairs of the Gas Company were more or less in a state of transition. It was not until after 1924 to 1926 that an assured supply was available and the Gas Company's business was on what we might call an even keel. But it does show that there are many factors that influence consumption besides price.

Mr. Zinder, at page 5209 (Volume 65) referred to the fact that in Pittsburgh, where coal sales at a comparable m.c.f. price to gas at 26.8 and gas actually is selling at 60 cents, that the gas at 60 cents still maintains a market saturation of some 15%.

THE CHAIRMAN: But that is largely convenience use, Mr. McDonald.

MR. McDONALD: I would agree with that, that is largely the convenience use and possibly the use is in specialized installations and with people who can afford that type of thing. But it also indicates that price is not the controlling factor in every instance.

Now Mr. Brownie filed Exhibit 137 which he entitled "Future Market as Related to Gas Rates", and that was directed to the same problem as that dealt with by Mr. Zinder. His submittal is made at page 5079 of the record. (Volume 64). Now he lists seven - I might suggest this that the purpose behind this submission is to consider what would happen if the rates should increase and Mr. Brownie sets out that domestic consumer will tend to use less gas as the rate increases, because it will cause consumers to

take immediate steps to offset the increase in expenditure by decreasing the consumption. Secondly, many people will make every effort to adjust consumption to fit the new rate rather than permit an increased expenditure for gas to encroach on other budget items. Thirdly, other sources of heat will be more closely competitive and in some cases more economical. I submit his first two items no doubt would be applicable but they would be more or less of a temporary nature and as soon as the consumers' budget has been adjusted then the tendency would be to obtain comfort and make use of gas to the quantity desired, without regard to price. In other words, convenience will override increased price.

Now with regard to the more economical substitutes, shall we say, Mr. Brownie enlarges on the methods which he thinks the domestic consumer would use such as house installations, secondly by the installation of new and more efficient appliances, thirdly by more careful control of gas consumption, fourthly by greater use of auxiliary electrical appliances, such as toasters, waffle irons, coffee makers, etc. Fifthly, any rate increase will adversely affect the Gas Company's public relations and sixth, by replacing gas ranges with electric ranges and seventh, by replacing gas fired central heating equipment with coal fired equipment.

Now what appeals to me in regard to these seven items, Mr. Chairman, is this, that of the seven, five involve expenditures of real money and some of them very substantial items. All of them require the scrapping of their present investment. In other words, Mr. Brownie's submission is that the customer will go out and spend money in order to save money. But I suggest to you that before a

customer will spend money to save money, he will analyze the relationship of the expenditure to the saving. In other words, if it costs him two or three hundred dollars to replace his furnace in order to save $10.00 a year in his gas rate, or $15.00 a year even in his gas rate, it is obvious he would have to live 20 to 30 or 40 years in order to make up the difference and make it a profitable transaction.

MR. FENERTY: He might think he was getting 10% on his money.

MR. McDONALD: The same applies to the gas range and the same applies to the house installations.

(Go to page 6959)

Now dealing with commercial sales at page 5090, Volume 64, Mr. Brownie lists ten items in which the consumption may go down, mostly by installation of new equipment and the replacement of obsolete equipment with up-to-date equipment.

The same remarks to savings on the bill as to the capital expenditure apply in regard to these installations.

Now Mr. Brownie sets out in Appendixes 5 and 6, certain graphs dealing with sales of power in the Portland area, and the sales of manufactured gas in Massachusetts. Now I submit, Mr.Chairman, that those graphs come in the same category as the schedules 2, 3 and 4 of Mr.Zinder's, with regard to the price of gas. They are an attempt to relate experiences in other areas to what may happen in this area.

With regard to the graph referring to the State of Massachusetts it strikes me that it is a graph dealing with a variation in price from 91 cents per M.C.F. to $2.00 per M.C.F. The annual expenditure by the customer is only $31.00. Now I suggest, Mr. Chairman, that is simply for the sale of gas for heating, or for cooking rather, and I suggest too, that that would be cooking mostly of a very limited nature, and I think there is very little comparison between that situation and what we have here, where the entire gas sales are in the neighbourhood of 30 cents per M.C.F., the basis used for heating and in very large quantities, comparatively.

With regard to the power administration, - the graph regarding electrical consumption, I do not go into that. I do not intend to go into and analyze the graph, but I submit that it is a very, - it is a graph attempting to cover the whole United States and while it might indicate a trend, it is not of specific use in individual cases. A perusal of the graph would show that the points taken are selected from

a number and that a number of points very close to those selected indicate something quite opposite to what the graph as a whole represents. In other words, it might be applicable to a nation as a whole but not to this particular area.

Now, Mr. Brownie sets out in Appendix 7 the variation between the average annual net revenue per customer in Calgary, and the Edmonton Gas Company, between 1929 and 1944. Now, the purpose, or the conclusion which Mr. Brownie drew from this Appendix was that the total bills or the total amount expended for gas remains the same, - I am sorry, that the tendency on the part of the customer is to pay out the same amount of money for gas regardless of the price.

Now, on cross-examination, Mr. Brownie was faced with an analysis, a specific analysis of the table, and he definitely admitted at page 5155, Volume 64, that the Appendix 7 could just as well justify - just as well as justify his statement that consumption remains the same whatever the rate, could as well justify that the total bills remain the same. No, pardon me, Mr.Chairman, I will get that, yes, the question is:

"Q Would it surprise you that the application of statistical methods to your figures in Appendix 7 leads to this conclusion, that there is just as much justification for the statement that consumption remains the same, whatever the rate, as there is for the conclusion that total bills remain the same notwithstanding rate variations?"

And Mr. Brownie's answer:

"A It would not surprise me at all, Mr. Chambers.

" I would not attempt to make an analysis of that kind myself from these figures."

And the analysis was submitted to Mr. Brownie and subsequently he agreed that that was the case.

Now, I just mention that, Sir, to show the danger of, to show that that particular statement of his will or can be read to the support of Mr. Zinder's conclusion up to at least a price of 33 cents, as using it for the purposes for which Mr. Brownie did.

Now, dealing with Saturation. Mr. Brownie, at page 5129, Volume 64, agrees that there is an exceptionally high percentage of saturation of the available business in Calgary. The only homes that are not served are those not available to gas lines.

At Page 5130, Volume 64, he points out that, despite efforts of the coal operators, the market has been maintained and increased since 1936 at considerably higher prices than presently are being charged for the gas.

Now dealing specifically with some of the items mentioned in this Exhibit, at page 5139, Volume 64, Mr. Brownie admits that he does not know whether coal burners had ever been used in this localtiy or that the coal was suitable, and he refers only to an analysis of the Sales Statement setting out the suitability of the appliances as claimed by the manufacturers.

At page 5152 he points out that the Massachusetts situation of manufactured gas is different from in Calgary.

Now at page 5156, Volume 64, he was specifically asked that if the 2 cent reduction which was made in February, 1943, was restored, would he consider that consumption would decrease to the extent that the total revenue of the Company

would be impaired and he was of the opinion that he would not go that far.

I cite that to show, Mr. Chairman, that despite the pessimistic tone of Mr. Brownie's submissions, that he is not applying his pessimistic approach to the increase of 2 cents, at least.

Now in conclusion, Mr. Brownie's submission leads to this conclusion, that any gas rate increase will have a cyclic effect on decreased consumption, based on the fact that consumers will replace gas burning equipment with coal firing equipment, and that the total economy effected by the use of coal firing equipment will not justify their installation. I asked him that specifically at the conclusion of his evidence on his Appendix No. 4.

In the Appendix No. 4, and that is his appendix in which Mr. Brownie deals with comparative prices of coal and gas in quantities applicable to commercial rates only. He starts with 1000 M.C.F. to 300,000 M.C.F. and he specifically admitted that, at page 5139, Volume 64, Appendix 4 applies to high load customers above domestic size only. Therefore, my conclusion, and which conclusion I invite you to draw from his statement, Mr. Chairman, is that with regard, only to those specific portions of the commercial rate and the industrial rate to which Mr. Zinder must refer in his exhibit, there is room for an increase in price.

In the final analysis Mr. Brownie has arrived at exactly the same point that Mr. Zinder did, and doing so he relates and applies his real reason not on the original demand position, but on the expectation that there would be an expenditure of money by present customers for equipment to be installed to obtain the more efficient and cheaper

fuel by the use of coal.

Now it is my submission, generally, Mr. Chairman, that the twenty or so thousand customers of the Gas Company are not in any appreciable quantity going to go out and spend large sums of money to effect those economies, if only a reasonable increase in rate comes into effect.

(Go to Page 6964).

Now Mr. S. J. Davies was called for the City. Mr. Davies filed Exhibit 154 in which he sets out statement of coal prices obtained by him after checking with wholesale and retail coal dealers. He then made calculations based on these prices applying efficiencies as to coal and gas based on installations checked by him in Calgary.

Now at Page 5792, Volume 70, Mr. Davies admits that his conclusions are based on the assumption that new equipment will be purchased and placed in operation in commercial buildings and then coal installations will be competitive with gas installations as presently used.

I submit that the final analysis of what Mr. Davies said is this, that present coal equipment in commercial buildings now being used with gas fixtures could not by a simple removal of the gas fixtures and then the use of the same installations for coal be called competitive with gas. In order to achieve the efficiencies which he has mentioned in his statement it would require the installation of entirely new equipment of a different design and then of course without taking into account any of the conveniences which gas has.

Now Mr. Davies in answering Mr. Blanchard at Page 5842, Volume 71, agrees that ten years ago coal was cheaper than it is today and that gas is more expensive. He explains the displacement of coal by gas ten years ago by the fact that coal installations were not efficient. That returns to my argument of a moment ago that the present installations in those buildings would not be more efficient now after a lapse of ten years of gas, and without the expenditure of large sums of money.

Now the other party that dealt with this point was Mr. R. E. Davis. He dealt with it indirectly in the submission he made in regard to the price in the field. He stated that competition with coal was not relevant to determine the domestic price in Calgary for the simple reason they are not comparable in any sense of the word.

At Page 5460, Volume 67, I submit that his statement is that in Calgary, as the domestic price of gas started upward from 30 cents, gas would begin to meet coal competition.By the time the price reached 35 cents the competition would be serious enough to give consideration to it. I submit that in Mr. Davis' statement the domestic rate can go as high as 35 cents before in his judgment there would be any appreciable loss of consumption. In that category I point out that Mr. Davis' evidence is directly contrary to that of Mr. Brownie and Mr. Davies.

Now in conclusion in regard to the point of competition, it is my submission that the evidence given by Mr. Zinder is conclusive that the competitive price of natural gas in Calgary for domestic consumption could be increased from the present rate to as much as 33 cents without incurring an appreciable loss of domestic markets. Similarly commercial and small industrial users of gas could afford to pay a similar price of 33 cents per MCF without materially causing a decrease in the amount of gas consumed after the initial period of adjustment. It should be further pointed out that Mr. Zinder's conclusions are based upon the competitive price element only without regard to many factors which influence the relationship between price and use besides the actual price of the commodity. As shown by Exhibit #137 which is the statement of sales and

rates charged from 1921 to 1934, the sales of gas in Calgary actually increased, though gas rates were increasing at the same time. Page 5802, Volume 71.

Now Mr. Chairman, that is the end of my submission with regard to the price of gas at the well head and the factors influencing the price to the ultimate consumer being the starting point from which to work back to ascertain the commodity value of the gas at the well head.

Now it is my purpose to deal with the cost of the utilities that lie in between the producer having his gas available at the well head and the consumer purchasing it for ultimate use.

Now in order to value the services of the utilities it is necessary for the Board to determine the rate base for each of the utilities on the rate of return and fix a just and reasonable value or the price of such service.

It is my intention to deal with the Madison Natural Gas Company Limited, the British American Utilities Limited, and the Gas & Oil Refineries Limited in order. In each instance I will deal with the valuation of the installations in place at the time the same became devoted to the public service. Secondly, the composition of the rate base, and thirdly, the rate of return and the price to be fixed in each instance.

Now, dealing with the installations in place. I draw from the submissions made that it is the contention of the Madison and the British American Company that in fixing value on the assets of these Companies which were installed years ago and now being brought under regulation for the first time, that the Board should follow the principle of

establishing a value on the basis of reproduction cost new less observed depreciation.

DETERMINATION OF THE VALUE OF THE SERVICES RENDERED BY THE UTILITIES IN TRANSPORTING GAS, AND THE ALLOCATION OF SUCH COSTS.

Now I might say in order to indicate what the producers or my clients have given consideration to, I am going to review what I think is the contentions of the different parties in regard to this valuation of the original investment.

It is the contention of the City and of the Gas Company, or as I draw or infer, from the tenor of the cross-examination, rather from any direct evidence, that in effect the Royalite Company in so far as its gas business is concerned is not being brought under regulation for the first time, but that all expenditures made and all assets accumulated in anticipation of regulation at some future date, and in effect the Royalite Gas business has been regulated ancillary to the regulation of the Gas Company business.

THE CHAIRMAN: Not so fast Mr. McDonald.

MR. McDONALD: I am sorry, sir, I will repeat that. It is the contention of the City and of the Gas Company that in effect the Royalite Company in so far as its gas business is concerned is not being brought under regulation for the first time, but that all expenditures made and all assets accumulated, were accumulated in anticipation of regulation at some future date and in effect the Royalite gas business has been regulated ancillary to the regulation of the Gas Company business.

Now, Mr. Chairman, my clients do not agree with that approach to the valuation of the assets of the Royalite Company. The view has also been expressed that in view of the

fact that the Royalite Company has been in the gas gathering business it is not entitled to a capital gain arising out of fixing a value on reproduction cost new less observed depreciation basis. In other words it is contended that the Board should not deal with the matter as being a sale and purchase, and there is no evidence whatsoever which establishes that Royalite ever had the opportunity to sell the gas business or that anyone under any circumstances was ever willing to purchase it from them.

Now the evidence submitted to the Board deals with four principles of valuation, all of which have supporters among the parties interested in the Hearing. They are as follows:

(a) Book costs, as shown by the books of the Royalite Company, as of the 1st day of January, 1943, advocated by the City.

(b) Historical costs adjusted to allow for administration and overhead during construction, less accrued depreciation on a throughput basis, with or without an allowance for going value as at the date of transfer,

(c) Reproduction cost new less observed depreciation, plus going value, submitted by Madison and the British American Company, and

(d) Reproduction cost new less accrued depreciation on a throughput basis.

This approach was discussed by every witness but was not directly supported by any one.

Now with regard to cost in view of the fact that my clients have a similar position with regard to establishing a valuation of these utilities as the Gas Company and the

City have, being at one end of the price structure, and the producers at the other, I feel I should put on record what my clients have to say about the book cost.

To put it briefly they do not think it should be relied upon and their recommendations are this, there was no witness who was prepared to state on the stand that the book cost should be taken. It was pointed out that the book cost should be taken as a basis for valuing the property trnasferred to the utility. It was pointed out that the book cost only reflected the original cost less depreciation as booked by the accountants of the company, having in mind the policy of the directors with reference to income tax, dividend and reserve considerations which had no relation to actual value, physical depreciation or length of the useful life of the assets of the Company. The City of Calgary did not see fit to place on the stand any witness who would positively suggest that book cost be a basis for valuation. In these circumstances it is therefore reasonable to suggest to the Board that such a basis can be eliminated from the Board's consideration in this matter.

Now with regard to historical cost. It had been arranged at the commencement of the investigation that the books and records of the company transferring the assets to the utilities would be open for inspection to the Auditor appointed by the Board, in this case Mr. Hamilton.

(Go to Page 6970)

It therefore follows that Mr. Hamilton was the only person who had the information available upon which an intelligent consideration of the application of historical cost valuation principles could be made. Mr. Hamilton, therefore, appears on the record as the only witness in support of this principle of valuation.

Mr. Hamilton's Reports show a careful analysis of the books of the company, a fair and impartial attempt to include costs which would have been capitalized if the companies could have foreseen that the assets would become the property of the utility at some future date.

Now, it is not my purpose to analyze what Mr. Hamilton's submission and evidence was, but there were two points that appealed to me as advanced by way of objection to historical costs. The first point was that there would accrue to the utility or the original owners, no capital gain due to the rising prices, and the increased costs of reproduction at the date of acquisition by the utility of the assets, and, secondly, that historical cost does not give due consideration to an allowance for maintenance, not only maintenance sufficient to keep the property in operation, but maintenance to provide efficiency and reliability of service, which is all to the good in this particular type of utility.

Now, Mr. Hamilton answers those two points at page 3755, Volume 48, where he maintains that under historical cost valuation, Royalite has the possibility of three capital gains:

(1) There is the restoration of items of cost which were charged to operation expense.

(2) There was the reduction in depreciation reserve.

(3) There is a possible gain in inclination of the Board to give some weight to the factor of sales depreciation.

Now, my only comment with regard to this, Mr. Chairman, is that in the first item of restoration of items of cost which have not been booked, I think the company is entitled to those in any event. Any variation in depreciation reserve is not a charge to the company. They were entitled to retain their account on any basis they desire. and I think the matter of depreciation is one that must stand on its own feet regardless of the type of valuation.

Mr. Hamilton deals with the matter of maintenance, at pages 3786 and 3787, Volume 48, where he points out that if the plant had not been substantially maintained it is doubtful if the plant would last out the economic life.

Then, we come, Mr. Chairman, to the reproduction cost new less observed depreciation. I might state now, Mr. Chairman, that my clients have instructed me to advocate, and we are suggesting to the Board, that the valuation be made by the Board on the basis of reproduction new, less accrued depreciation on a throughput basis. Now, my clients were influenced in making the decision because of the fact that the valuation made by Mr. Hill and the Royalite Company appealed to them as being a very fair valuation.

MR.HARVIE: What is that, Mr. McDonald?

MR. McDONALD: It was made on a very fair valuation on the reproduction cost basis. Mr. Hill pointed out at page 1773, Volume 22, replying to a question by the Chairman, that the Board should consider whether there should be included in valuation increased costs arising under war conditions

which the company never paid and never will pay. He states such increased costs should be recognized when the Board feels that the level which has been reached by those costs is apt to continue into the future. He believed that these costs were settled as at November, 1943, and he appraised the property accordingly.

Now, my clients agree with that statement, that in this particular case the valuation as of November 1943 is, as far as could be seen at this time, a fair valuation, particularly having in mind the methods adopted by Mr.Hill.

At Page 1774,Volume 22, Mr. Hill stated that his valuation is a combination of book value where it can be found, manufacturers' costs when book values were not available, to which he added a percentage to cover increased costs of labour and materials. He does not agree that he was influenced by a factor based on personal judgment. What I have in mind there, Mr. Chairman, is having arrived at his percentage to cover the increased costs of labour and materials, he then applied it mathematically to the inventory as he found it, at a cost that he established by a reference to the original book value and to searching the present costs of those items in the records of the manufacturers who were offering for sale.

At page 1780, Volume 22, Mr. Hill states that reproduction costs conservatively made, is the best method in his opinion, but consideration should also be given to historical costs, the circumstances under which costs were incurred, the value of the services, that is, what the service is worth to its users, and the maximum rate above which service charges should not go, no matter what the rate base should be.

Mr. Teis made the valuation of the B.A. equipment. His valuation is made, as he stated at page 2754, Volume 36, on the basis that the system was being purchased for a use to which it had not been put in the past. It represented that transfer of the physical assets as at sale at fair market value on the assumption that the purchaser would buy the materials at the going market price if installing the system for itself.

Now, the only submission I have with regard to Mr. Teis' valuation, is that I believe that he used not normal cost figures, but figures based on abnormal conditions arising out of the war, particularly labour costs, and, therefore, I intend to suggest that the Board apply the principles of valuation used by Mr. Hill to the items catalogued and inventoried by Mr. Teis and thereby have the same basis of valuation for both utilities.

MR. HARVIE: Is this a matter of your present submission?

MR. McDONALD: Yes.

THE CHAIRMAN: Mr. McDonald, in that connection Mr. Teis valued the gathering lines of British American, lines which were installed for the purpose and the only purpose at that time of recovering natural gasoline. Under the Act I have authority to revise the contract between these absorption plants and the people who produced the gas. Now, do you suggest that when I revise the contracts that I should do it on the basis of the valuation made at the time of the revision or the valuation made at the time of the making of the original contract? Which would be a proper basis to take?

MR. McDONALD: Well, there are different sets of circumstances there.

THE CHAIRMAN: Oh no. No, no. You see, Mr. Teis says, "I do this because....."

MR. McDONALD: There is a sale.

THE CHAIRMAN: ".....those lines are going to be used, put to a use which they never have been used for before."

MR. McDONALD: That is true.

THE CHAIRMAN: But they will continue to be used for the original purposes as well, won't they?

MR. McDONALD: Yes.

THE CHAIRMAN: All right. What should the basis of the valuation be, when I revise the contract, or, rather, when I hear the evidence on which the revision is passed, or the date on which you made the contract, which is on the basis of 80/20.

MR. McDONALD: Well, I suppose that the situation between the parties who are going to use this equipment for dry gas purposes, or gas sales purposes, is different than that between vendors of natural gasoline content in gas being transported. In the first place one is an entirely new situation, and the other one is one that has been in existence for many years, and there are equities as between the parties that should be taken into account. Whereas, in this particular case, on the valuation for the purposes of this present hearing, we find assets which have come into use and are used and useful for the purposes of a dry gas market, and some compensation should be made to the owners of the utility's assets.

THE CHAIRMAN: Then do you suggest.....

MR. McDONALD: In arriving at that valuation, Mr. Chairman, I suggest this reproduction cost valuation. There is somebody new coming into the picture and the valuation

should be made having that in mind, but on the other phase....

THE CHAIRMAN: Who is the new person coming into the picture?

MR. McDONALD: The direct gas purchaser, whoever he might be.

THE CHAIRMAN: But he has been in there for twenty years.

MR. McDONALD: I am speaking now of the British American only. Were you referring only to the British American producers?

THE CHAIRMAN: No, what I am referring to, it applies to both of course.

MR. McDONALD: I see.

THE CHAIRMAN: It applies to both companies. In other words, you are suggesting that there be one base of valuation for the purpose of supplying the Calgary market but possibly a different basis of valuation when you come to the revision of natural gasoline content.

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MR. McDONALD: Yes, for this reason, that there may have been considerable contribution to the purchase and installation of the assets by the producer who is delivering gas to the natural gasoline and absorption plant in prior years.

THE CHAIRMAN: And what about the additional revenue that the producer is going to get by reason of the installations that have been made?

MR. McDONALD: Yes. That is of course a matter of proof as to whether there is or is not going to be any additional revenue. But even if the producer does obtain additional revenue he obtains it because he happens to have been part owner or interested . . . . .

MR. HARVIE: Part owner of the profits but not of the losses.

MR. McDONALD: He has been part owner and so associated in the additional revenue that will be obtained.

THE CHAIRMAN: That is right.

MR. McDONALD: That is no reason that he should not obtain that on a proper basis off valuation from the new users. In other words if the producer should make more, it will not be because he is a producer but because he is associated with the British American Company under contract which is in part a partnership arrangement. I do not think the producer can be placed in the two situations.

Now with regard to the Royalite plant, I subscribe to the view expressed by Mr. Stevens-Guille and emphasized throughout the Hearing, that the gathering system for gas in the Royalite area was . . . . . .

MR. HARVIE: Mr. McDonald, I wonder if I might just

ask for an explanation of the basis on which you suggest these valuations are made, where you say Reproduction Cost New less Accrued Depreciation on the Throughput Basis. Do you mean in regard to the throughput that has already gone through and . . . . .

MR. McDONALD: Yes, the over-all throughput basis. I will enlarge on that. Just the exact computation that Mr. Hamilton made.

MR. HARVIE: Yes, thank you.

MR. McDONALD: I was referring to the gathering system in the North End and the valuation there made and that was primarily a market valuation for the installations were made primarily for the gas market and have been extended.

THE CHAIRMAN: And just happened to run into an Absorption plant on the way.

MR. McDONALD: Yes, I think that is the exact circumstance. I do not think there is any doubt at all about that. History is definite on that point. Now in Exhibit 132, Mr. Andrew Stewart dealt with matters of the valuation for rate base purposes and I take it that his view is that there is much support for the contention that the initial rate base should be determined on a reproduction cost basis, though he points out that this valuation should not be made during a period of high prices, as this would result in a high rate base in perpetuity, which is a factor beyond the reasonable expectation of the investor and would not be a fair value having in mind the interests of all parties concerned.

Without reviewing a great many of the authorities, all of which are familiar to the Board, it is

my submission on behalf of my clients that in this instance the Board will establish a fair value well within the reasonable expectations of the investors owning the installations in place at the date the legislation came into effect, by adopting the reproduction cost appraisal made by Mr. Hill of the Madison properties and applying the same principles of valuation followed by Mr. Hill to the installations of the British American Utilities.

Now in arriving at the conclusion to recommend to the Board that this type of valuation be made, my clients have been influenced by a number of factors:

1. Mr. Hill has submitted a detailed valuation based upon a thorough inspection and related to prices for equipment and labor which are reasonable having regard to the period over which the installations were made, having regard to the inflationary influences of the demands created by the War activities and consistent also with the increased cost of labor following increased interest in social legislation, increased taxes, and a general establishment of a greater cost for all articles through a more generaus treatment of labor.

In other words, Mr. Hill's valuation is reasonable, both as to prices of materials and supplies and labor. In addition, he has made a reasonable allowance for administration and overhead in fixing 9% for this item including interest.

2. Now my clients, of course, do not quarrel as it were with the application of the adjusted historical cost method of valuation suggested by Mr. Hamilton. They feel that the closeness of the final figures on Mr.

Hamilton's adjusted historical cost valuation to that of Mr. Hill's figures when both are subjected to accrued throughput depreciation, support the fairness of Mr. Hill's valuation.

3. My clients also feel that the adoption of a reproduction cost valuation is fair to the Company in this instance where the Company could reasonably expect that it would not come under regulation and hence did not keep books in a manner which would reflect accurately the full investment and the charges that fairly could be apportioned to capital account.

THE CHAIRMAN: Do not forget, Mr. McDonald, that the contract between the Calgary Gas Company and the Royalite has been subject to the jurisdiction of the Board for many many years.

MR. McDONALD: I have that in mind, sir.

THE CHAIRMAN: And they should have been anticipating that some day their contract might require to come under the scrutiny of the Board in a public Hearing. They could hardly then say "Well we did not know." They must have known.

MR. McDONALD: Well my clients feel, as a matter of fact, that when the Royalite books, on Mr. Hamilton's evidence, indicate that charges which all agree are properly capitalized, have not been so dealt with and there is a conflict in regard to what items should or should not be included in the valuation, that that is an item or a reason that the whole matter should be resolved in the reproduction cost valuation, rather than an attempt to take the original cost and then make estimates as to other things and add them to it to build up the historical cost valuation. As I have it written here sir, and I deal with that point this way, it is true that in his adjusted historical cost valuation, Mr. Hamilton

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makes reasonable allowances for all costs which ordinarily would be capitalized but at the same time there is considerable conflict, and in considerable amount with regard to certain items, which my clients feel in fairness to Royalite should be taken into consideration, all of which is avoided by adopting Mr. Hill's basis of valuation.

I feel that the situation with regard to the bookkeeping of Royalite is that they have a composite operation; oil production, drilling of oil wells, gas production and . . . . .

THE CHAIRMAN: And absorption plants.

MR. McDONALD: And absorption plants, and it would be a miracle if there would not have been considerable conflict in attempting to find the historical cost from the records which they kept.

THE CHAIRMAN: My remarks were not made critically, Mr. McDonald, but just to show that they cannot say "we did not know anything about this," and they have been under the jurisdiction of the Board for years.

MR. CHAMBERS: Not as a utility.

THE CHAIRMAN: No, but the Public Utilities Board has jurisdiction over contracts between the two companies.

MR. CHAMBERS: Oh yes.

MR. McDONALD: The views you have just expressed fit into my arguments on the next point. That is I am dealing now with having established a basis or set out a basis on which I am advocating the rate base be fixed and that is at Mr. Hill's gross figure. Then the question is how should that figure be depreciated and in what amount.

THE CHAIRMAN: Mr. McDonald, just a moment please.

Mr. Mahaffy, I assume that you are going to make some submission for your clients. If so, I want you to know that Mr. McDonald is going to occupy all of today so that unless you wish to stay, I do not think there is any hope of you being heard today.

MR. MAHAFFY: That is very kind of you, Mr. Chairman. I would like to be present when Mr. McDonald opens fire on the small part of the Valley set-up that we are involved in. He estimated that he would not reach it until some time today and I was able to stay away yesterday afternoon. Perhaps, Mr. McDonald, in view of your suggestion, would indicate - will you be ready this morning?

MR. McDONALD: Not this morning, no.

MR. MAHAFFY: Then I will be back this afternoon.

MR. McDONALD: Now depreciation, according to the evidence, was dealt with in two phases by Mr. Hill and by Mr. Teis, advocates of observed depreciation, and Mr. Hamilton and Professor Stewart, advocates of accrued depreciation on a throughput basis. Dealing with the observed depreciation. Mr. Hill stated that in his opinion pipe lines would outlast the length of the life of the field and he used a rate of depreciation equivalent on a weighted basis of 7 years. He dealt with this item at pages 1688, 1716 and 1722. He depreciated the other assets on observation, and one point struck me that compressor equipment which had been in use since 1921 was obsolete about 1940.

Now Mr. Hill also gave effect to obsolescence as set out at page 1804, Volume 23. Mr. Hill points out at the same time that if the cost basis is used for valuation, obsolescence has no bearing because the

historical cost takes into account the efficiency or otherwise of the equipment.

Now Mr. Hill sums up and points out that his observed depreciation was arrived at by observation of the physical plant, examination of the records of the inspection which disclosed the condition of the inside of certain items. He examined the pipe line and then formed an opinion as to the probable future life expectancy. I refer to page 1585 of Volume 20.

At page 1802 of Volume 23, he admits that if someone else arrived at the same figure it would purely be chance. Observed depreciation is a matter of judgment.

Now in my opinion, and that of my client, observed depreciation is not a proper basis and I think I can sum up my objection to it by reading the criticism set out by Barnes, in his book "The Economics of Public Utility Regulation" at page 485:

> "Many and serious weaknesses beset the inspection method of measuring accrued depreciation, even in its more highly developed forms.
>
> (1) In theory, depreciation proceeds from all those conditions which tend to limit the useful life of productive property. The inspection method, however, tends to narrow the search for depreciation to those aspects of the property which are susceptible of physical identification and measurements.
>
> (2) In procedure, the inspection method assumes that

" it is possible to forecast the remaining useful life of equipment and other property currently in use. As a matter of fact, it is quite impossible to forecast the useful life of most property without resort to the experience tables which are basic to the service-life method."

"To ask the engineer to forecast the remaining life of a generator, a pole line or a car, is like asking a doctor to predict the life of an individual; in either instance, if the condition of the property or the individual is critical enough, a forecast of an early end may be possible, but otherwise the prediction based on inspection alone is of little worth."

"(3) If the engineer bases his estimate of depreciation on experience tables, is not his result at least as accurate as that obtained by adherence to the service-life method? Even this question cannot be answered with an unqualified affirmative, for the engineer is constantly tempted to substitute his judgment, based upon observation, for that of the experience tables, usually in the direction of predicting a longer life on the basis of the physical condition of the property, and:"

"(4) Finally there are practical objections to reliance upon an inspection measure of depreciation. First, much of the property of the utility cannot be inspected. Secondly, much of the property that can be inspected physically cannot be judged with respect to depreciation."

"Although the weaknesses should lead to

its rejection as the sole method of determining the accrued depreciation, the inspection method possesses certain important advantages as a supplement to the service-life method. In this role, inspection may reveal whether the property has been adequately maintained, and if maintenance has been neglected, it may indicate the presence of more accrued depreciation than would have been found on the basis of life tables alone. Also, an inspection may give important information as to the imminence of premature retirement for functional reasons, and may indicate the necessity of enlarged provision for the depreciation of particular categories of property."

Now that latter part of what I read, Mr. Chairman, has peculiar application here. Inspection has shown obsolescence in the Seaboard Plant. It has shown also that maintenance has been a prime consideration of the previous owners and that the property is in very good shape and more than that, adequate and more than adequate for the purposes of the balance of its useful life.

Mr. Hamilton is the witness who put forth the suggestion of the historical cost basis of valuation and adopted the method of accrued depreciation on a throughput basis and his reasons for that, I understand, are that the physical life of the plant can be expected to extend beyond the economic life of the field. Therefore the economic life should be taken as the measure of the useful life of the plant, and in this way have regard to the beneficiary of the service rendered by the plant other than the utility company proper.

Mr. Hamilton was closely cross-examined by Mr. Chambers as to the effect of this theory. Mr. Chambers urged that the adoption of the throughput basis in effect means that consumers are partners or beneficiaries in the past and future operations of the company. Mr. Hamilton, as I read his evidence, did not specifically agree or disagree, but he holds that if the estimated throughput is conservative then the present reduction of depreciation would be too great and would never be restored and Madison would lose a rate of return over the ensuing period.

Now this discussion is at pages 3803 and 3809 of Volume 49, and I will refer to that again, Mr. Chairman, when I deal with Professor Stewart's discussion on the same point.

I have adopted Mr. Hamilton's calculations of the throughput depreciation. You will recollect that he attempted, no, he did not attempt, he took from the records of the Royalite Company the gas throughput of the gathering system and added to it an estimate of the remaining reserves, using the whole as a basis, as 100%, and he arrived at something like 31%, and he applied a similar method to the B.A. valuation.

Now my own submission as to whether that is fair or unfair is this, that that is the only evidence we have. If there should be any variation in that, if it could be demonstrated by the parties that there should be or that there has been an error in Mr. Hamilton's calculations, then we would carry that variation out.

Now dealing with this point of the throughput depreciation, Professor Stewart, who concurs with

the reproduction cost new valuation on the initial rate base, advocates that depreciation should be determined by the transfer from capital account at the rate at which the raw material has been used up. He supports his statement on the assumption that the investor must have a reasonable expectation of recovering the investment over the whole expected life of the asset, and therefore it is reasonable to suppose that prior to regulation provision has been made for the recovery of the proportion attributable to the amount of product used up, actually used up.

If this is not the case, he states at page 4414, Volume 56, the investor must be the loser.

At page 4417, Volume 56, Mr. Stewart specifically does not agree that in adopting this attitude he is taking into account prior losses or prior profits of the owner of the concern and that the consumer is thereby sharing in profit.

You will recollect, sir, that Mr. Hamilton mentioned that if the estimates of the remaining reserves should be an error, that to be conservative there should be even a greater depreciation in the past that the owner would be penalized and would have an irrecoverable loss. He did not agree specifically to the suggestion that the consumer would be sharing in the profits as suggested by Mr. Chambers.

MR. CHAMBERS: Mr. McDonald, I do not want to interrupt but in fairness to Professor Stewart, did he not say whether that was so or not it was a sudden death proposition and you would have to cut the line somewhere.

MR. McDONALD: Yes.

MR. CHAMBERS: He did not disagree with it.

MR. McDONALD: Yes, that may be so but in any event the argument did not detract from his opinion that the throughput depreciation was a proper application in this particular instance.

Dealing with the point of whether reserves should be taken into account, he did point out that the establishment of a rate base fixed on any other basis may be such as cannot be paid for from the small amount of the reserves left in the field.

(Go to page 6988)

In other words dealing with a wasting asset the whole useful life of the equipment from the date of its installation until the date when the final gas would be withdrawn from the reserve would be taken into account.

CONCLUSIONS RE DEPRECIATION

Now my conclusions with regard to depreciation are these. In arriving at a conclusion as to the method of depreciation to be applied in this particular instance I believe there are three outstanding facts which are clearly established by the evidence.

First - it is clear that the installations were made with the intention on the part of the Royalite Company to carry out the contract in effect between the Gas Company and that Company for such period of time as gas could be profitably extracted from the field.

I submit, sir, that arises, and is a plain intention from the mere reading of the contract. It was for the life of the field and every quantity of gas which could be extracted by the Royalite Company was assured of a market under that contract with the Gas Company.

Secondly - that because of the fact that installations were made withthe prospect of being used and useful during the life of the long term contract for the supply of gas, it is reasonable to conclude that apart from tax and dividend purposes the Directors of the Royalite Company anticipated that actual physical depreciation would be proportioned to the handling of the entire reserves in the field and would accrue on a throughput basis. Therefore, the finding by the Board that accrued depreciation as at the date of regulation should be

calculated on a throughput basis is fully justified.

Thirdly - the objection by Madison that the adoption of an accrued throughput depreciation basis does not take into account monies spent on maintenance and replacements of a capital nature, which in effect make the system being taken over under regulation as good as new is fully met I submit by two answers:

(1) The reproduction cost valuation in itself presupposes an installation on a new basis less only due allowance for obsolescence and then depreciation follows.

(2) That due allowance for excess maintenance may be made by adding to the depreciated valuation a proportion for going value of the nature recommended by Mr. Hill. This is the course which my clients are recommending to the Board.

In other words, Mr. Chairman, my clients take the view that Mr. Hill's valuation is subject to reduction because of the obsolescence of the Seaboard plant and because of Mr. Hill's evidence that the plant has been well maintained my clients are in favour of the addition of the 10% to the depreciated valuation as a measure of so called going value. And in that connection I should point out that Mr. Hamilton, though at first advocating - no, Mr. Chairman, I should not say advocating, at first expressing his opinion that going values should not be taken into account even in his historical cost valuation, did at the end of the Hearing point out his mind was not as fully made up in that regard as he had previously indicated and that he is still of an open mind. That is at Page 5313, Volume 66.

Mr. Stewart deals with going value at

Pages 14 and 15 of Exhibit 131. He includes the idea of good will, the value of an established business and what I would call the orthodox view. That is the value of business as a going concern, the cost of becoming established and suggests an allowance for cost of becoming established, and say the capital cost which had not been taken into account. But my clients take the view adopted by Mr. Hill rather than the ordinary orthodox approach to going value. They feel that there has been efficiency displayed in the erection of the plant through the association with the engineering staff of the Imperial Company and the thoroughness of their preparations which my clients have had an opportunity of judging over a period of many years and I may say that of the Committee no one took any objection to a due allowance for going value of the kind indicated by Mr. Hill.

Now with regard to overhead administration. Mr. Hill, as you will recollect allowed 9%. I am in accord with that allowance. It may be very well submitted that this allowance is less than that made in other circumstances, but there is no evidence which has been adduced which indicates that this allowance is not more than the actual cost incurred by the Royalite Company and therefore must be taken to be a fair and reasonable one.

Now there is just one thing I should deal with before leaving this point and that is the question of an additional deduction from rate base as established up to this point on account of the difference in operating costs as between the operation of the Girbotol plant and the operation of the Seaboard plant. Mr. Hamilton submitted such additional operating expense on a basis of $7,000.00 to $8,000.00 should

be capitalized and the amount thereof deducted from the rate base. Now my clients feel that a party advancing a reproduction cost valuation must not only accept the advantages that accrue by that method of valuation, but also the disadvantages arising from obsolescence and that the suggestion of Mr. Hamilton set out at Page 3649, Volume 45 and by Mr. Stewart at pages 4520 and 4530, Volume 57 should be adopted by the Board.

THE CHAIRMAN: And if another method of fixing the rate base is adopted by the Board, then how would the $7,000.00 item be treated. You see you have predicated that on reproduction cost, if you take advantage of reproduction cost.

MR. McDONALD: We must take the disadvantages.

THE CHAIRMAN: Suppose some other basis. Supposing the Board said that Smythe & Ames is a pretty good case notwithstand the Hope Natural Gas case and then follow their consideration. Suppose the Board should do that how should I treat that $7,000.00.

MR. McDONALD: I must take this view, that you cannot have your cake and eat it too. If the original cost valuation with the additions make it into historical cost valuation, is taken and the advantages thereof accrue to the consumer or the customer, then they must also take the disadvantages and one of the disadvantages is that the Seaboard plant is somewhat obsolete, So that they will have to go through. I think it must work both ways and I would suggest then that there be no deduction for the additional operating expense. They have to take the good with the bad.

Now, sir the next item in our rate base is our working capital. Now I must say during the Hearing there was considerable cross-examination with regard to whether

it would be cheaper to borrow money for some items of working capital and for short periods. I feel in reply to that submission that no Company should be placed in the position where it must depend for ordinary working expenses on the necessity of relying upon its bank. It might be quite justified to ask the Company to borrow for an unusual expense but not to borrow for expenses which can usually be foreseen and that any ordinary business man would provide for.

Now to make it brief. I am recommending to the Board that the working capital in the amount suggested by Mr. Hamilton be adopted, at least for this initial stage of regulation. I feel that Mr. Hamilton has demonstrated that his calculation of working capital is fair and he has made a small allowance of $10,000.00 for contingencies. I would, therefore, suggest $140,000.00.

MR. HARVIE: Mr. McDonald, doesn't his calculation anticipate there will have to be some bank borrowings in the early stages ?

MR. McDONALD: Not if you make use of the $10,000.00 contingency for a short period.

Now I do that having taken into account the orthodox measurement of working capital made on a 1/8th basis. Now with regard to the British American I am also adopting Mr. Hamilton's calculation of working capital. Now, sir, I have worked out a rate base for the Madison Company according to principles which I have reviewed, and also operating statements for the years 1945, 1946, 1947 and 1948.

STATEMENTS NOW REFERRED TO AND FILED, MARKED EXHIBIT 186.

I am referring to Exhibit 186, Mr. Chairman, now and you will see that I have taken the appraised value on Mr. Hill's basis less accrued depreciation, and I have adopted the calculations set out by Mr. Hamilton in W H-5 and W H 5A in his Exhibit 124. I then deducted the allowance of excess cost of the Seaboard operations as set out in W H-2B, leaving $1,623,542.00 as being the actual investment including the percentage for overhead. I then made an additional allowance for going value on the basis suggested by Mr. Hill. He used a gross amount of $200,000.00, and I have used a straight 10% of the net value of the installations. I then added the Girbotol royalty, which always appeals to me as being a child that is not wanted, and it always appears in strange places, and then added the working capital of $140,000,00, giving a total rate base as of January 1st, 1944, of $1,945,622.00.

Now, in turning to the next page of Exhibit 186, I have taken the direct expense for the year 1945 from the statement filed by Mr. Smith as being the actual direct expense booked by the company in 1945. I have also adopted the administration and general expense in the exact amount booked by the company. I have taken the direct depreciation at the rate set out in the exhibit of the Madison Company, which was filed as Exhibit 181, and I believe it is 4.31%.

I then have taken the direct returns on the basis of 7% net or 11.66% gross. The allocation of costs have been made on the volumetric basis.

I might point out, Sir, that in the $460,831.00 of direct expense is included the rate of return, the depreciation, and charges with regard to the service units. In arriving at the return and the depreciation, I have calculated

the rate base allowing the rate of return at the mid-point in the year, adding the additions on the 50% in each year, taking 50% depreciation, making my return at that point, and then adding the additions for the balance, 50%, and deducting the balance of the depreciation to arrive at the new balance for the first year, identical to that followed by the Madison Company.

Now, Sir, in the following year.....

MR.HARVIE: Mr. McDonald, I wonder if I might ask here, in the latter columns you say "To be recovered from absorption plants and the consumers."Where do you differentiate between Compressor Plant No. 1 and Compressor Plant No. 3.

MR. McDONALD: No, I am sorry, Mr. Harvie. I did not have space to put my total in there. It is the division between the $81,657.00 and the $387,100.00, comprising a total of three items, the Compressor Plant No.1, Compressor Plant No. 3 and the gathering lines. Those are the parts that are divisible between the consuming market and the absorption plant.

MR.HARVIE: So that you just took those three items and carried them forward as one?

MR. McDONALD: Yes.

MR. STEER: You have not discussed your view of the volumetric system.

MR. McDONALD: No, Mr.Steer, I am coming to that. And I have not expressed my views on the amount of the rate of return, with which I will deal in a few minutes.

MR. STEER: I presume that is 15%.

THE CHAIRMAN: No, eleven.

MR. McDONALD: The rate of return is 11.66%, or were you referring to the amount, Mr. Steer?

MR. STEER: I was referring to the allocation to the absorption plant.

MR.HARVIE: The allocation to the absorption plant in this instance is 17.42% on the basis set out by the exhibits filed by the Madison Company, Exhibit 158, in which Mr.Smith explained the calculation of the distribution of the wet gas as between the gasoline plant and the market. It is a straight volumetric distribution.

MR. STEER: As you interpret it.

MR. McDONALD: Yes, as I interpret it. The reason that 17% arises is that there is the North return fuel and sundry items of sales which are in addition to the actual loss or used up in the absorption plant itself. Now, in the subsequent years, I used 15%, whereas you will notice in Exhibit 181 of the Madison Company, that they have used something in the neighbourhood of 12%.

MR. CHAMBERS: Why did you use 15%, Mr. McDonald? I mean any particular reason?

MR. McDONALD: No, just as a guess. I would say this, Mr. Chairman, that I do not purport that these statements are accurate. I have made them up only as an indication of what the policies which I am setting out may have on the over-all picture.

THE CHAIRMAN: What you are suggesting is that you are a better lawyer than a chartered accountant?

MR. McDONALD: Yes, I certainly do so. In addition to that I anticipate that they will be accurately checked by the Board's auditors, but I think they are sufficiently accurate that any conclusions derived therefrom are within the range of one-tenth of a cent, and that is quite permissible. I might also point out that in the direct expenses for 1946 I

have allowed a decline of 20% from that of 1945, and in 1947 I have allowed for a further decline. I am sorry. That should be 5%, not 20%.

MR. CHAMBERS: What is that in?

MR. McDONALD: In the direct expense.

MR.HARVIE: You allowed 5% rather than 20%?

MR. McDONALD: Yes, allowed 5% instead of 20% of the $460,831.00, leaving $437,792.00 in 1946, and a further drop in 1947 to $415,905.00.

MR. CHAMBERS: Again is that an accurate figure?

MR. McDONALD: That is a pure arbitrary calculation. The reason that I adopted that, Mr. Chairman, is this, when you examine the submissions set out in the "A" Schedules of Exhibit 79, I believe it is, that is the Madison 9 statements, the Madison Company declines their direct expense in the neighbourhood of about $20,000.00 per year. I personally feel with the continued high wages and the continued increased operating expenses that will prevail at least for the next three years, that the decline I have made of the direct expense is reasonable. If I had adopted the forecast of the Company, I believe it would be even less than what is set out here.

MR. CHAMBERS: But the figures you use are not based on any evidence.

MR. McDONALD: No, no evidence, just pure argument. I am impressed by the fact that the Company should estimate their direct expense in the neighbourhood of $400,000.00 in 1945, but when it was actually incurred it was $460,000.00. That is an understandable increase, and, therefore, we should not go back to the original estimate, and we should maintain the same basis as before.

Now, administration and general expenses I have left at $60,453.00 despite the fact that the Company's estimates as set out in M-9 of Exhibit 79, are considerably higher. I feel that in doing so I have made due allowance for contingencies and unusual expenses. We know that there costs in connection with this inquiry that must be borne by some of the companies, and in addition we are in the first three years of regulation and it would be my submission that it would be wiser to provide for a surplus other than be faced with a deficit in our estimates. Now, Sir, I would like to, if I may do so, deal at two o'clock with the allocation of the return, and then I will go on with the other rate bases following that.

THE CHAIRMAN: All right. Adjourn to 2 o'clock.

(The Hearing was then adjourned and resumed at 2 P.M.)

.....

MR. McDONALD: I am going to deal now, sir, with the question of the allocation of operating charges for wet gas gathering and compressing as between the absorption plant and the market. Now the allocation of these costs has been one of the most contentious points raised in the Inquiry.

THE CHAIRMAN: Mr. McDonald, did you say between the Absorption Plant and the market?

MR. McDONALD: Yes.

THE CHAIRMAN: Do you not mean between the well head and the absorption plant?

MR. McDONALD: No, I was saying the allocation of operating charges.

THE CHAIRMAN: Oh.

MR. McDONALD: The operating charges between the absorption plant and the market. The composite of all the charges are between the well head and the market. The charges are these for gathering of wet gas, that is from the well head to the absorption plant and now are in existence, that would involve gathering lines themselves and the compressors which in the case of Madison raised the gas to in the neighbourhood of 325 pounds and in the British American area it would be the gathering lines and compressor installations which raised the pressure to in the neighbourhood of 150 pounds, what we call the low pressure system, the low pressure compressor. Now the evidence upon this point was given by Mr. Hill, Mr. Kirkpatrick, Mr. Mercer, Mr. Stevens-Guille, Mr. Donellan, Mr. Zinder and Mr. R. E. Davis.

Now briefly, Mr. Hill favoured the volumetric theory of allocation of the costs between the absorption plant and the market. Mr. Kirkpatrick adopted

the same allocation in his submissions and the operating costs estimated were on that basis, for the Madison Company. Mr. Mercer filed Exhibit number 98 setting out a similar submission on the part of the Royalite Company.

Now I gather from Mr. Kirkpatrick's evidence that if the absorption plant was operating as such, it would operate without regard for peak load and that a much lesser installation of compressor capacity would be required. Not only compressor capacity but also gathering capacity and the reference, sir, is page 2233 of the record. Volume 29. Now at page 2236 (Volume 29) Mr. Kirkpatrick stated that if the absorption plant was not in operation, the same cost for gathering would be incurred. That is to say if the gas went directly from the well head to the market for market purposes, there would be the same capacity of gathering lines as are now in place serving both the market and the absorption plant.

It should be noted, I think, that Mr. Mercer, at page 2641 (Volume 34) admitted that Royalite, for its own purposes and carrying on its own bookkeeping operations, allocated its own expenses amongst its departments and followed three different methods of allocation. The first is that which was followed in 1944, namely, allowing Madison 5% of the proceeds of the natural gasoline as payment on account of the gathering cost and (2) the sales realization basis for the purpose of internal accounting and (3) the volumetric basis advanced by the Company at this time.

Now there was some cross-examination of Mr. Mercer and also Mr. Stevens-Guille with regard to on what basis were the gathering lines built. Were they

actually built for gathering purposes for the market or gathering purposes for the absorption plant. Now I interpret the answer received as being that the lines were built, having in mind the general use to which they were to be put, and that there is no real evidence as to whether they were put in at any one time for either purpose, but generally they served both purposes.

Now with regard to Mr. Donellan, sir, Mr. Donellan yesterday outlined the basis which his Company is prepared to adopt and I will deal further with that when I deal with the British American rate base.

Now I think it should be noted with regard to Mr. Stevens-Guille's evidence, dealing with the engineering problem of gathering and compressing, that the gathering system was put in for the purpose of insuring a steady and continuous supply of gas and similarly the compressors were installed to deliver the gas to the market and not for absorption plant purposes. I interpret that to mean that the 325 pounds pressure is not necessary for the absorption plant operation. The absorption plant is built and is functioning on that pressure but that the real necessity for the 325 pounds is for the purpose of delivering gas at the terminal points of the transmission lines of the gas company.

Mr. Stevens-Guille emphasized the volumetric approach to the problem and further pointed out that for absorption plant purposes, the capital expenditure required would only be for the average day's supply and not the peak load capacity as high as some 80 million cubic feet which is the peak load requirement.

Now the next witness who dealt specifically with the problem was Mr. R. E. Davis. I submit, Mr. Chairman, that he approached the problem having in mind more what the effect of his allocation is rather than an attempt to allocate on a basic principle. His evidence contains references to the benefits that are to be received by the plant, both the B.A. and the Madison, rather than the principle of allocation based on some cost basis common to both plant and market. For instance, dealing with the B.A. Plant, Mr. Davis points out that capital was committed to the plant, the absorption plant, before this present scheme was proposed and there seems to be no reason why this scheme should relieve the British Ameridan Company of any costs to which it was already committed.

Now dealing with the Royalite Plant, Mr. Davis admits that part of the installations were put in to gather gas for the market, but he points out that up to 1938 there was a flare at the Royalite plant and that the Royalite No. 2 Plant was erected without any connection with the market. It therefore appears that No. 1 and No. 2 Plants were both profitable. He therefore suggests the allocation of costs should be on the basis of 100 parts to the plant and 90 parts to the market, of a total of 190 parts being the gross costs.

He was examined at page 5505 to 5520 (Volume 68). In answering Mr. Chambers' suggestion that the only concern of a utility is to receive its full cost for the services rendered, Mr. Davis agreed that whether a customer makes or loses money is no concern of the utility; but he adds that he believes that in fixing rates for various

commodities for transport consideration should be given to what the service is worth to the patron.

Mr. Davis admits that the cost of gathering dry gas and wet gas is the same and that the utility's charges to various consumers should not be discriminatory.

At page 5558 (Volume 68), Mr. Davis admitted that the arithmetical approach often leads to a conclusion that is not right. For instance the suggestion made that 10 plus 90 equals 100 and the division be made of 10/100 and 90/100 is just as reasonable as his suggested proportioning of $\frac{100}{190}$ and $\frac{90}{190}$.

At page 5560 (Volume 68) Mr. Davis admitted that there are uncertainties in dealing with the problem on a gross realization basis. There is the uncertainty of the price of gasoline and uncertainty in the manufacturing costs in the plant and in addition, uncertainty in the volume of gas that is available. Mr. Davis, I submit, finally agreed at page 5563 (Volume 68) that the net value of the product at the point at which the division is made is the governing feature, rather than the gross value of the product on a realization basis of allocation.

If you will recollect, Mr. Chairman, I put the question to Mr. Davis that it was the net value of the absorption gasoline which should be taken into account at the Plant rather than the gross value. In other words, if the gross value of the product of the plant was $300,000. and the cost amounted to $250,000. that the amount to be taken into account for realization and allocation would be the remaining $50,000., that is the net value of the product.

That will be contrasted to the value of the gas at some point that is at the outlet of the absorption plant.

At page 5615 (Volume 68) in discussing the benefits accruing from the gathering of the gas, Mr. Davis agreed that if as a result of its operations the plant is not profitable and there are no net moneys accruing to the owner then no part of the gathering costs should be charged to the absorption plant.

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That follows from the argument I mentioned with regard to what is the basis of division on the benefit or gross realization basis.

And I submit, Mr, Chairman, the effect of Mr. Davis' evidence is, outside of putting forward a bare arithmetical formula, that he did not substantiate his first allegation, that benefit actually should be or benefit, as I interpret it, the gross realization basis, should be followed.

Now, Mr.Zinder, when he first appeared before the Board, was asked his opinion in regard to this point. He gave his offhand opinion and then asked for time to consider it, and on his second appearance before the Board he submitted in writing a considered statement, and I summarized it this way:-

Mr.Zinder states that it is fair to charge the absorption plant with such part of the operation costs as are attributable to the volume of gas pumped, as the volume of gas actually used up in the absorption plant bears to the total volume of gas handled up to that point.

And in the case of the Madison Company, the net effect of the application of this principle is that the volumetric proportion is the same.

Now on cross-examination Mr.Zinder was asked what effect he would give to the situation where the peak load differs from the average volumes handled by the plant over the year, particularly with reference to the demand side of the quotient.

Now I refer to Volume 65, page 5253, a question by Mr. Chambers:

"Q As I understand it from your Schedule "A", Sheet 3, the proportion of the gathering charges which you are allocating to the Absorption Plant are based on volume all the way through, on both sides, the Demand Charges and the Volumetric Charges, is that not the way it works out?

A That is the way it works out, Mr. Chambers, If it happens that the volume at the time of the peak differs from the average volume over the year, I would have made a difference in the proportion of the Demand Costs allocated to the Absorption Plant as against the volumetric costs.

Q In other words, you are regarding the fact that at the demand point the Absorption Plant is taking the volume of the peak amount and you are regarding the Absorption Plant as being co-responsible for the demand, along with the dry gas market?

A That is right."

Now the significance of that evidence, as I understand it, Mr. Chairman, is this, that in the case of the Madison Plant where the demand, where the throughput is directly related to the market, actually used from day to day, and the peak is created entirely by market demand, that the volumetric, that the proportion is the same both from the demand and volumetric sides, but that in a plant where the throughput of daily average, that is not affected materially by market demand, that is by the peak day market demands, then the demand charges should be apportioned on an equal basis, that is, I take it, the 50-50, that is 50% to the market and 50% to the absorption plant, and it may be, in my view, that

that that is one difference between the absorption plant of the Madison Company and the British American Company.

Then at page 5271, Volume 65, we questioned Mr.Zinder with regard to the allocation, having in mind the benefits received.

Mr. Zinder agreed that the general principle where service has been given, there would be implied a rate of return to the person who performed the service, but if this service is not evaluated scientifically, then you can value it on the basis of the service up to 100% and it becomes a matter of personal judgment within the limits of the money available.

Dealing with benefits, Mr.Zinder points out the difference in established benefits are such that it should not be followed if any type of scientific approach can be found and he suggests that his theory of allocation, which is not a theory but a practice, it is a practice followed in many other industries, is the soundest method of allocation.

Now to summarize, Mr. Chairman, I submit:

(1) That there is no evidence upon which to base any method of allocation resting upon a division of costs by weight of the product.

(2) That the arithmetical formula first stated by Mr.Steer during cross-examination and adopted by Mr. Davis, is not supported by any sound reason and outside of the fact that it is an arbitrary method of division, has no more merit than a similar arithmetical formula that 15 plus 85 equals 100.

(3) That there is no basis upon which to establish a division of costs with relation to the gross realized value of the products obtained by processing in the absorption plants, namely, residue gas and absorption gasoline. If both products were regulated there may be some justification for this approach, but there is no means whereby the price of absorption gasoline can be regulated, with the result that the cost of the gas will, in effect, vary without regard to any factor related to it.

There is the further point that, as Mr. Davis admitted, gross realization is not a fair basis as it could easily follow that the absorption plant could not be operated at a profit and the cost would be borne 100% by the gas market, and finally:

(4) I submit that the volumetric method used by Madison, supported by its submission, is a fair basis of division. This method is supported by Mr. Zinder's theory of demand and volumetric allocation. I agree that in respect to the Madison absorption plant with Mr. Stevens-Guille's evidence, that the plant was installed of a size and quality sufficient to process the volumes required for peak load market purposes as contrasted to a plant required to process on an average daily basis the annual gas load.

Then following that statement with regard to the Madison, Mr. Chairman, which I used and applied as the

statement in the filing of Exhibit 158.

Now I will deal, Mr. Chairman, with the British American.....

THE CHAIRMAN: Mr. McDonald, I wonder if I am a little dull this afternoon.

Mr. Zinder's formula and Madison's formula are quite different, are they not?

MR. McDONALD: They have the same results as applied to the Madison's plant.

THE CHAIRMAN: Then why bother with all the formulae, I mean I do not want to waste a lot of time on Mr. Zinder's formula if the result is the same.

MR. McDONALD: Oh, in regard to the Madison plant but not in regard to the British American, and that is why I differentiated between the two.

THE CHAIRMAN: So you are advocating in the case of Madison, 85 and 15?

MR. McDONALD: Yes, or relative figures of that amount, that is so.

MR. HARVIE: But not on the Zinder formula.

THE CHAIRMAN: No, that is only applicable to the B.A. apparently.

MR. HARVIE: I was wondering as to that.

MR. McDONALD: As applied to the, - the Zinder formula as applied to the British American, that is as I apply it.

MR. CHAMBERS: Pardon me for interjecting, Mr. Zinder's evidence or formula is exactly what we applied and my question to him was this, and I thought I tried to make it clear in my argument, that while we were not responsible for the peak, that by adopting that volumetric basis, we entered

wholeheartedly into the problem and went further than we should have or we were bound to go.

THE CHAIRMAN: What still troubles me is the fact that before this Act was passed the absorption plants stood all the gathering costs of gas and by the enactment of this Act they are put in a more beneficial position than they were in before.

MR. CHAMBERS: Other people have found themselves in the same position, as a result of legislation.

MR. McDONALD: Well, my views as to that are these, that with regard to the Madison plant we are not in a position to say whether it did or did not absorb all gathering costs. From the statements which have been made, I think they show that the gathering costs have all been apportioned in the Royalite set-up between the gathering of gas and the absorption plant. There is no doubt whatever as regards the Gas & Oil Refineries plant and the B.A. plant that your statement is correct.

Now, sir, ...

THE CHAIRMAN: And the logical result of that is that the people of Calgary may be called upon to pay a price for gas and out of that these utility companies make more money than they made before, because of that allocation.

MR. HARVIE: Not the utility companies.

THE CHAIRMAN: All right. I find it difficult to distinguish between them, Mr. Harvie.

MR. McDONALD: That might be the result.

Now we come to the British American plant, which is a different proposition, and I take it, rightly or wrongly, I hold this view that the Royalite Company in 1921

entered the gas business primarily. That was its business and since that date it has developed a business which is actually delivering gas to the Gas Company, including these gathering lines and these compressors, and that therefore they have been applied, and I presume a due proportion of their cost has also been that they attach to this gathering system, related to the income that they get from the gas. That is one phase and one situation and then we come to the other class and that is an entirely different proposal, an entirely different state of affairs.

(Go to page 7011)

and I differentiate and intend to apply to the British American plant what I consider is the Zinder formula and in so doing I hope to meet this question of a fair distribution of costs as between the consuming market and the absorption plant and the producers connected to it.

Now, sir, I reach the question of the rate of return. This is I think possibly one of the most important points because of the reason that the rate of return and the earnings of these companies accumulated over the life of this plant in this field will amount to a very very considerable amount of money. A difference of 1% will mean a very great difference to the parties involved. I have used a rate of return of 7% net, and 11.66 cents gross.

Now as I understand the rate of return may be defined as that percentage of the rate base that the utility is entitled to earn for interest, dividend payments and related requirements. It is further described as the product of rate base and the rate of return is the return or the fair return which is the residual amount remaining after operating expenses, taxes and depreciation expenses have been deducted from gross earnings.

THE CHAIRMAN: Mr. McDonald, I have the feeling I am not interested in what dividend has been paid.

MR. McDONALD: No, I do not think it has any effect on establishing....

THE CHAIRMAN: I thought you mentioned dividends.

MR. McDONALD: Yes, that is part of what can be done with the money when they get it. Now I am not going to labour the point. I submit that the best definition of what is involved in return is that set out in the leading

case in the United States, that is the Bluefield case. I am going to read what the testbook writers say is the finding in that case;- or part of it and that part is this:-

> "A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties, but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures."

Now I must point out Mr. Chairman, we are not dealing with constitutional rights here, but I do want to emphasize this:

> "But it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures."

I would leave out constitutional applying it to our situation and it has no right to profits realized or anticipated in highly profitable enterprises or speculative ventures. And the reason I mention that is because in attempting to arrive at what is a rate of return for these particular businesses the comparative feature has been emphasized by one or more of the parties and I then come to a consideration of what is the evidence before the Board.

We find that Mr. Kirkpatrick introduced for Madison the rate of 9½%. He stated that apart from his instructions he personally thought that the risk involved in

the gas business substantiated his own judgment that 9½% is a proper return. He referred to the Gas Company being allowed 8½%. He admitted the Royalite Company had actually paid on the market value of its shares 5%. I might point out, sir, that I do not place any reliance upon what is paid by way of dividends as being an indication of what the rate of return should be.

Mr. Donellan, in his evidence, and through Counsel yesterday, supported his application for 9½% for the British American Utilities on the basis that his Company had earned over an average of seven years 9.08% on its invested money from Canadian operations. Now the only thing I have to say about that, Mr. Chairman, is this, that the British American Company is interested in many fields of endeavour, many of them which are highly profitable enterprises and many of them which are speculative ventures and I suggest that earnings achieved from such ventures should not be taken into account in establishing the rate of return for a utility such as the British American Utilities. That Company, we know, from the evidence submitted did not make any money from the operation of the absorption plant in Turner Valley. Therefore it must have made much more money in other operations, many of them probably highly speculative and many of them in ordinary profits.

THE CHAIRMAN: You can put it this way too, that any of those companies make not only the wholesale profits but a retail profit as well and in other businesses they make on the one but not on the both.

MR. McDONALD: That is all I have to say about Mr. Donellan's proposal.

Then we come to Mr. Baker and he bases the rate of return on the information received from the Statistical branch of the Bank of Canada.

Now all I have to say about that is this. The only way a person can make the 9% indicated by that statistical summary would be to invest that money in every one of those 678 companies. I submit that the result of 9.04% is purely a mathematical result. It indicates to my mind the danger of using averages and placing too much reliance upon them.

THE CHAIRMAN: Then do not get into a milk inquiry, Mr. McDonald.

MR. McDONALD: No sir.

By way of comment, Mr. Baker freely admitted on Page 2929, Volume 38 that if the book value used in this statistical summary was less than true value the return would not be as indicated and if in fact the value was doubled the rate of return actually earned would be halved. In other words the 9.04% if related to a minimum value indicated by the books of the company would in fact, if the proper value was placed on the equipment, be only 4.5%.

Now Mr. Baker at Page 2974, Volume 39, admitted that the net earnings of composite groups of stock in Canada at the relevant period varied from 3.94% to 4.42%. Now this is a reference to Exhibit 112, which was a copy of a page from the Financial Post in which was set out two groups of investments. One I believe was called the McNab and the other has just escaped my mind. But these two groups were based on the activities and the earnings of industrial stocks in Canadian Exchanges and I think they are a fair cross section

of what money prudently invested would bring.

Now I must emphasize, Mr. Chairman, that these are net earnings received by way of dividends that are reflected in these two figures, 3.94% and 4.42% and that the Companies may in fact have earned a great deal more money which is retained in the Company for investment, but if a person was going out to invest his money that is what he would receive for money invested in industrial stock in the relevant period.

Now a question by Dr. Boomer at Page 3007, Volume 39, Mr. Baker admitted that the securities of the Calgary Gas Company and the Edmonton Gas Company were at a premium and were issued at 6% and 4½% respectively.

THE CHAIRMAN: That was the preferred stock and the bonds ?

MR. McDONALD: Yes, the Calgary Gas Company is a preferred stock issue 6% preferred and the Edmonton Gas Company is a bond issue paying 4½% per annum.

Now, sir, I might state here that I do not intend to make anything of the suggestion made to Mr. Baker, Mr. Hamilton and Dr. Stewart with reference to the fact that the Madison Company and the British American Company are financed on a common share basis, rather than a basis of bond issue and common stock. I feel that is a matter of internal management and that the Company is entitled to raise this money in any way it sees fit.

THE CHAIRMAN: I agree with that Mr. McDonald, but would not the method of financing have some relation to the rate of return.

MR. McDONALD: Yes, it has this relation and the reason why I make that suggestion is this that ordinarily public

utility companies are financed by bond issues which are sold to the public through brokers and in turn through salesmen with the result that there is a financing cost incurred. In this particular instance and in both these instances the money has been raised free from any type of financial cost with the result that there has been a saving of those costs which otherwise might very well be placed in the rate base as part of the going value or some other phase of organization of the Company and would be properly charged to the rate base. That is the thought I had in mind there.

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I feel, Sir, that the question of whether this is a bond issue or not may have some bearing in the mind of the Board when it comes to consider the rate of return plus the matter of income tax. Throughout this Hearing we have dealt with income tax on the minimum of 40% and it has been conceded, I suggest, that the tax in the minimum amount is the proper cost of operations. Now, if because of the method of financing the tax is unduly increased I think it should be taken into account, but having in mind the cheapness, as it were, of the capital raised in these instances, there is no element of additional consideration that should be applied in these particular companies.

THE CHAIRMAN: Correct me if I am wrong in this, Mr. McDonald, that if you had a preferred stock it would not affect your income tax at all, and if you had a bond issue your bond interest would be deductible before the computation.

MR. McDONALD: Yes, before the computation. The part of the record with regard to that point, Mr. Chairman, is the evidence of Mr. Baker at page 2947, Volume 38, where he stated that he investigated the possibility first of all of placing a debenture trust mortgage on the undertaking and the Madison Company. He advised that he was informed by his engineers that there were not enough substantial recoverable assets which in the event of foreclosure could be sold to satisfy the mortgage of an appreciable amount. Now, that gave rise then to the consideration that possibly the capital could be raised on the basis of 50% bond and 50% common stock, and it was Mr. Hamilton's view, as set out at page 4868, Vilume 61, of the record. And in coming to a conclusion with regard to that, Mr. Chairman, frankly I feel that the net of 7% is the minimum rate to be set and that in arriving at that

I have taken into account these minor considerations which have been mentioned.

THE CHAIRMAN: How do you arrive at it, Mr. McDonald?

MR. McDONALD: That is just what I am coming to, Sir.

THE CHAIRMAN: All right.

MR. McDONALD: I feel that we have got to start to ascertain the rate of return to be applied to these particular companies from the ground up. Now, at page 21, of Exhibit 131, Professor Stewart deals with the principles applicable to determining the rate of return. He emphasizes that the rate of return cannot be determined without reference to other aspects of regulation, including the method of determining the rate base. He further states that the risk factor is affected by decisions regarding the allowable expenses, the provisions for depreciation and the measurement of the rate base. He points out that reproduction cost at a time of high prices and wages decreases the element of risk associated with price fluctuation. A generous allowance for overhead may warrant a moderate rate of return. Also the method on which gains or losses are treated by the Board, whether losses may be recovered, that is to say out of the future earnings, or whether excess earnings are placed in reserve, all of which affect the risk and the chances of a net return to the investor.

Then he deals with the physical hazards, the possibility of changes in methods, the possibility of changes in prices, and the possibility of changes in the methods of administration and the policies affecting the utilities.

And then he comes to what I think is

the important point, as to where are the comparable investnebts. He admits they are difficult to find, and that they cannot be found in unregulated competitive businesses, unregulated monopolistic businesses, or where imperfect competition does not prevail. And, thirdly, the rates allowed in other cases may not induce investment in a particular case. In other words, moneys invested in other properties, where the same investors would hesitate to put their money in the particular utility.

Now, Professor Stewart defines pure interest at page 4487, Volume 57, as being that rate of interest of Dominion Government securities, as being securities which have the least risk. Then I also point out, Sir, that in looking for comparable returns, and I put to Professor Stewart several classes of business which are in active operation in this area, he pointed out that the businesses that I put to him, the grocery business, the liquor business, the wheat elevator companies, otherwise stable businesses, are really susceptible to investment of speculative capital, of a different type than that invested in the utilities. He admits that telephone utilities would be a close comparison. Similarly electrical enterprises. But he states in those two types of business there is less risk than in the gas business.

I might point out that having Government telephone companies we have no comparison there.

THE CHAIRMAN: I can tell you the comparison, Mr. McDonald, because they happen to be subject to the jurisdiction of this Board.

MR. McDONALD: Yes.

THE CHAIRMAN: It is just during the last few years that they have even earned their depreciation.

MR.McDONALD: Yes, Irealize that. Now, with regard to the electrical enterprise, the only relative one is not regulated in this area in the sense of a public utility of this nature, so that we have no comparison there.

Professor Stewart at page 4506, Volume 57, definitely states that the investment of a company of its own funds in its own utility enterprise, as contrasted to its general business, is not a comparable alternative for investment. They are now comparable investments, he says. I mention that to support my argument previously that the British American proposal is not, I believe, sound.

Now, it should be pointed out here that Professor Stewart raised this point, which I think is of importance, that in the ordinary course the investor investing in bonds of a utility company could find a ready market and dispose of those bonds. I have reference, for instance, to the Gas Company bonds, the Calgary Gas Company preferred shares and the Edmonton Gas Company bonds. But in this particular instance the Royalite Company invested in Madison and the British American Company invested in the B.A. Utilities and I feel they would have a difficult time to readily go on the market and raise money they have invested by sale to purchasers.

Now, there is one point that Professor Stewart raised, and that is in the case of a wasting asset with a diminishing rate base, that the risk to the investor should be reduced.

Now, if you asked me, as you did a moment ago, as to why I choose 7%, Mr. Chairman, I might say that we have only two companies which are in the nature of their business somewhat comparative. One is the Calgary Gas

Company, doing business and in business since 1921, having a rate of return of 8½%. Now, my submission with regard to that is this, that that 8½% was set about the year 1921, confirmed, I believe, in 1926, and again in 1931, and it was set having regard to the circumstances that were applicable to the business of the Gas Company at that period. We have in evidence before us the judgment of the Public Utility Commissioners in which they set out their reasons. Now, briefly, I feel that the reasons are these:

In 1921 the Gas Company was in a position in which its life was very limited, practically a year or so to go. We know that it is reflected in the statements I referred to this morning. Therefore, a finding of 8½% at that time was fully justified by the risk inherent in the investment that was made.

In 1926 there was still considerable risk involved in the Gas Company operations. Turner Valley at that time had not yet been fully developed.

In 1931 we find that the risk with respect to the Gas Company was emphasized, and I may say very effectively. You will recollect, Mr.Chairman, that in the judgment of the Board they referred to the fact that the evidence not only of the Gas Company witnesses, but also of the City, was that Turner Valley would cease to be a source of supply for the Calgary Gas Company within a very few years.

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I think they vary around 3 to 7 years, Under these circumstances I feel that 8½% to the Gas Company was possibly justified. I am thinking of a comparison to our own particular case.

Now from 1931 on, I can only say that the rate of return of 8½% is not a regulated rate of return. It is a rate of return which the Gas Company has enjoyed, I suggest, purely because of negotiations which have been carried on by the Gas Company with the officials of the City of Calgary, and resulting from these negotiations from time to time there have been substantial reductions in the rate base and substantial reductions in the prices paid for gas. But I feel that in none of those negotiations has the question of what is a proper rate of return to be earned by the Gas Company received consideration, having in mind the fact that with conservation in Turner Valley, the life of the field has been extended not from 5 years or 3 years as Ralph Davis so emphatically stated in 1931, but to 1974, and therefore the element of risk as between the Gas Company in 1931 and the element of risk that now exists with regard to the rate of return has been reduced to such an extent that I would, as a consumer of gas, certainly feel that 6% or at the most 6½% would be quite adequate for the Gas Company at this date.

Now dealing with the Valley Pipeline Company which has a rate, I believe, of 8%, there are equally relevant considerations. Firstly, the business as it were has a life which possibly will expire from a point of profitability very close to 1951. There is a difference in time. The risk is inherent and I think that the differentiation of 1% which I have made between

what we are asking in this gas business and in the oil transportation business is justified.

Now returning to why I select 7%. I have set out the reasons why I have subtracted, as it were, from the two prevailing rates, looking at the rates which investors can earn by purchasing shares on the market in widespread industrial concerns, varying say from 4 to 5 per cent. We must add to that, sir, that additional earning which is not reflected in dividends, nemely, money carried through for re-investment and added to that from 3 to 2 per cent as a reasonable addition. We then arrive at, roughly, 6% and then the question of risk involved in field operations in Turner Valley must be taken into account. Every witness examined on the point stated definitely that there was a larger element of risk in field operations serving one field, as compared to a distributing system in the gas business which has an assurance of supply of gas from other sources at some time in the future, more assurance than the field utility has that its equipment will ever be used in another field.

In allowing for this differentiation I built up to 7%.

Then I can only express the view, too, that the Committee who instructed me, comprised of from 8 to 11 business men engaged in several lines of business in addition to the oil business, think in their own judgment that 7% is reasonable, not inordinate but at the same time is a just and liberal rate of return for these particular utilities.

Then to summarize, Mr. Chairman, I feel that the rates of return fixed at other times and other periods,

having in mind other factors of risk both in supply and market for gas and oil are not applicable today. In other words the rate of return of 8½% to the Gas Company and 8% to the Valley Pipeline Company were fixed, having regard to the particular facts and circumstances at the time the return was adjudicated upon. I think that the Board should now look at the evidence before it, and the rate of return expected by investors at the present time, namely 4½% and 6% and allow for some increase in risk because of the fact the utilities are field utilities serving one source of supply. It is in consideration of this latter item that my clients have endorsed for submission to the Board the 7% net return as being reasonable for field utilities.

Now, Mr. Chairman, in this submission I do not want to overlook the argument advanced by Mr. Chambers that there is a greater risk in respect of an investment in field utilities than is apparent from the evidence now before the Board. He referred to the fact that this field is not now protected by an exclusive contract for the supply of gas to Calgary and that there is a possibility of the supply of gas to Calgary being shared between this field and some other field in the future. If so, there may be an additional risk element come into the picture. Now I feel that this merits some consideration at this time but should not be given effect to necessarily at this time. If, as and when such a circumstance arises, then some consideration should be given to the fact that the investment maybe has a very much longer, extended life as a result thereof. Now that might react both ways. It might react to increase the risk and it might react to take away some of the risk and

at the same time allow the money to be invested for a longer period and in the net result the investor would not suffer. That is all I have to say with regard to rate of return.

Now, sir, I come to the British American rate base.

SUBMISSION WITH RESPECT TO
BRITISH AMERICAN RATE BASE
NOW MARKED EXHIBIT 187.

Now, sir, if you will refer to Exhibit 187 on the first page, I have set out my calculation of the investment as of January 1st, 1945 that I would recommend the Board should adopt for the installations in place in the British American area at the time regulation became effective. Now I deal with the high pressure lines, taking as my starting point Reproduction Cost New, as contained in Exhibit 133 at page 3. Now this was the exhibit, Mr. Chairman, filed by Mr. Donellan, containing an adjustment of British American installations on the inventory made by Mr. Teis but reduced to unit cost on the basis used by Mr. Hill in the Madison area. I read the second to the last column on page 3 of this Exhibit to give the Total Reproduction Cost New of the pipes and installations connected therewith at $113,403.60.

MR. HARVIE: What page is that?

MR. McDONALD: Page 3 of Exhibit 133. Then the reproduction cost new of meters is $9,828. to which I have added installation cost as cited, $573. And then the full allowance for rights of way, $2554.

THE CHAIRMAN: That installation charge refers only to meters, I suppose?

MR. McDONALD: Just meters, yes. The lines are a composite charge, the cost of laying and so on is there.

That is undepreciated. I therefore in accordance with my submission in regard to the Madison rate base have taken the accrued depreciation on a throughput basis, adopting the calculation used by Mr. Hamilton in WH-16 in his Exhibit 124, and the amount is 31.64%.

(Go to page 7027)

Now I repeat again that if there is any manifest error in the calculations by Mr. Hamilton I would see it applied, that there was an adjustment made and applied to this calculation.

Now I then have allowed a return with regard to overhead at 9%, being a similar return to that allowed in the Madison rate base.

Then I make an allowance for going value on the same terms and for the same reasons which I allowed 10% in the Madison case.

We do not have the same evidence as to the maintenance of this system, that Mr. Hill gave, and that Mr. Stevens-Guille gave, but I feel that Mr. Teis, on his inspection, during his inspection, gained a fair knowledge of the matter and he was unqualified in his statement that the equipment was fairly well maintained and that it was justified, and on that I feel justified in suggesting an allowance for going value.

That gives us then for the high pressure line, a total of $103,568.00.

Now when I come to the watering system I find some difficulty because of the fact that a great deal of evidence was not led with regard to this particular item, but referring to Page 8 of Exhibit 133 I calculate that the unit comprising the water system, if valued at cost on Mr. Hill's basis, would amount to $13,964.00. I find Mr. Hill's allowance for laying the pipe amounts to $7,254.00.

Then I return to, I think it is 102(b) and I find the only other item of equipment that is not comprised in the pipe is a pump, described as a mud hog pump,

which Mr. Teis or the Company valued at $517.00 and I include that at its face value.

Now I find that on the basis of accrued depreciation throughput Mr. Hamilton, in WH 16, finds the amount of depreciation to be 43.63%. That I believe follows from the fact that the water system was placed in use before a great deal of the pipe which is included in the high pressure lines and on the weight or average of the depreciation there is a differential of 12%.

I made an allowance for overhead again at 9% and an allowance for going value of 10%, making a total value of $14,690.00.

Now for the new installations, I have arrived at an adjusted cost, and I will first outline it, Mr. Chairman, and then deal with the reasons why I make the adjustment.

On Page 2 of Exhibit 187 I set out in the first column the costs, as I gathered them from Exhibit 102(b), and the total is $787,208.00.

I find that subsequent to the filing of that Exhibit an item of a fuel scrubber had been added, making the total of eighteen thousand dollars odd, $800,798.00.

Now I have adjusted the $800,798.00 on the basis of a fraction of 663 over 786. You will note in my fraction I have omitted the use of the fuel scrubber, which for some reason I missed until my calculations were completed.

MR. HARVIE: Why do you use 663 instead of 664?

MR. McDONALD: That is a question which I will now deal with.

I found, Mr. Chairman, - I do not remember

the Exhibit number but I did file an Exhibit, Mr. Chairman, to set up the differential or difference between the actual costs as completed of the British American installation as compared with the original estimate given to the Board in March and April 1944.

Now just to run over the calculation at the bottom of page 2, I set up the total cost of $786,559.00. The original cost is estimated, according to Exhibit 102 (d) as $480,681.00.

The additions which were approved by Board order amount to $44,885.00.

The use or expenditure for labour on the contract of the Gentry organization, increased the labour cost by $77,263.00.

Giving the net actual cost as authorized, I submit, directly authorized at least by Board order as $602,830.00.

I have added an allowance for overhead and administration and incidentals of 10% on $602,830.00, which is the adjusted cost as shown in the second column of the part of Page 2.

Subsequent to that I have added the fuel scrubber but in making my adjustment I used the figures 663 over 786.

This means, sir, that I have disregarded what I may term, "excess costs of $123,447.00".

THE CHAIRMAN: Mr. McDonald, you have here original cost four hundred and eighty thousand odd.

MR. McDONALD: Yes.

THE CHAIRMAN: Does that include the laying of the lines

which were in fact laid by Gentry, and if so that should be deducted.

MR. McDONALD: No, yes, that includes, sir, the laying of the lines as estimated by Mr. McCutcheon, but the seventy-seven thousand dollars is the original cost arising out of employing the Gentry labour.

THE CHAIRMAN: That is not the amount of the Gentry contract, it is only the additional cost.

MR. McDONALD: The additional cost.

THE CHAIRMAN: I see.

MR. McDONALD: That is my understanding of Exhibit 102 (d) which was filed by Mr. Donellan.

THE CHAIRMAN: What was estimated, that was filed in May 1944 - -

MR. McDONALD: $480,681.00.

THE CHAIRMAN: That was Mr. McCutcheon's estimate ?

MR. McDONALD: That was Mr. McCutcheon's estimate and then the Board subsequently authorized $44,885.00.

MR. HARVIE: I think that was not in May.

THE CHAIRMAN: Whenever the enquiry opened first and the date of the filing of the Exhibit.

MR. McDONALD: Yes.

Now I might explain, sir, that Mr. Donellan submitted an analysis of the excess cost.

I think I should make it clear that I have no hesitation whatever in agreeing that the full amount of $800,798.00 was spent by the British American on the undertaking but I should point out that that sum includes an allowance for overhead, and an allowance for interest, with which I am not specifically in agreement, but I do not question that the full

amount was expended and it is not for that reason at all that I am suggesting the adjustment which I have set out in this.

Now in coming to analyze the excess cost, Mr. McCutcheon or Mr. Donellan filed Exhibit 102 (d) and at Page 42, or rather at page 3260 of Volume 42, he analyzes his submission to show, sir, that comparing the original investment, the original estimate of four hundred and eighty thousand dollars plus fourty-four thousand, in other words five hundred and thirty-five thousand dollars, there was expended for

increased cost of pipe,	$50,520.00,	9.61%;
Increased cost of labour under the Gentry contract	77,263.00,	14.71%;
Increased cost of fittings due to the fact that larger pipe was used,	23,000.00,	4.4%;
Installation of heaters	21,000.00,	4.1%;
Rights of way	586.00,	.1%;
Increased cost of compressors and stations	78,173.00,	14.8%;
Miscellaneous items	9,630.00,	1.83%;

The total, sir, is $260,177.00, or an increase on the original estimate of 49.63%.

And in that increase, I might point out, there was an administration expense of $68,183.00 and interest on capital during construction of $28,836.00, amounting to $97,719.00, which Mr. McCutcheon it appears failed wholly to take into account, so that of my differential of $123,448.00, $97,719.00, it can be said, is the indirect cost of administration and interest, leaving the balance of some twenty-six thousand dollars actually disbursed money, a part of the direct charges which I have failed to allow the company in my adjustment.

Now, sir in coming to the reasons as to why I suggest that the Board deal somewhat along these lines with this particular undertaking. I submit, sir, that a review of the evidence given by Mr. McCutchin when introducing the original presentation of the estimates of the British American Company would convince any Board that the estimates were given in good faith by Mr. McCutchin in which he sincerely believed himself and in which he fully expected the Board to believe; which he fully expected the Board to adopt and with a reasonable leeway for errors and omissions which I state he undertook the estimates would cover the cost of the installations. I do not for a minute suggest there was anything in the nature of making an attempt to make a lower estimate or to induce the Board to accept such. I think he took everything into account that was necessary.

At Page 232 and up to page 237 in Volume 4 Mr. McCutchin was examined at length by Mr. Steer. As I read his evidence he stated the cost per MCF for delivering the gas at the scrubbing plant of the Madison Company would be 6½ cents per MCF. At prevailing prices this would leave 1¼ cents for scrubbing and in payment to producers. Now you will recall Mr. Chairman at that stage Mr. McCutchin was dealing with figures which he based on a five year amortization scheme. On the basis of a ten year amortization the per MCF cost would be reduced, Mr. McCutchin alleged to about 5½%. The actual figure I have in my notes and I did not check it on the record is 5.44 per MCF.

Now, sir, after making the allowances which I have made and as it were penalized the British American to the extent of approximately $123,000.00, the per MCF cost on

my calculations are 7.86 cents. On the Company's calculations they are 8.980 cents, that is without the penalty of $123,000.00 being deducted and the difference also of the different rate of return.

THE CHAIRMAN: And that of course is charging off all the low pressure gathering system to the low pressure compressor into the rate base to be amortized by the consumer in Calgary ?

MR. McDONALD: In my case I have a considerably more liberal attitude than the submission filed by the Company yesterday. My figure of 8.980 cents is based on $248,000.00 cost to the market in 1945, plus a repressuring charge of $33,000.00 being apportioned to the market by taking into account those deductions which Mr. Donellan wrote out yesterday and which are in fact in their submission regarding the low pressure system, but my figure of 7.86 cents is based on my 7% rate of return. My rate base with $123,000.00 deducted and on a considerably more liberal allocation of the costs as between the plant and the consumer.

MR. HARVIE: Is that for the year 1945 or the ten year period ?

MR. McDONALD: That is for 1945. I might have used the ten year period when I spoke of it a moment ago.

MR. HARVIE: Would you give that to me again ?

MR. McDONALD: On the 1945 basis, on the basis of my submission 186, the MCF costs are 7.86 cents. On the basis of the submission made by the British American yesterday, that is adding together $248,000.00 approximately charged to the market and $32,000.00 allocated to repressuring, the costs are 8.980 cents per MCF. I use as my denominator the scrubbing sales figure of 3,129,000 MCF.

MR. CHAMBERS: Mr. McDonald, as I understand it you are depreciating everything on a 10% for ten years ?

MR. McDONALD: Oh yes, I have not yet come to the operating statement. My submission is on the basis of ten years straight line depreciation.

Now, sir, this is a difficult subject and it is hard to come to a conclusion in regard to it. I would refer,however,the Board to Mr. Harvie's statement to the Board at Page 154, Volume 3 of the record and I mention this for two reasons. First, to establish the bona fide nature of the officials of the British American Company at the time. They were definitely sure their scheme would come within the limits of costs which they had outlined to the Board, and secondly, to indicate that they were so sure of their position that they were willing to accept a fair measure of responsibility in the event there should be an error or omission.

Mr. Harvie stated at Page 154, Volume 3:-

"However we have confidence that the price this Board will set will be a fair one for scrubbing, and on that basis we are prepared to go ahead with our entire submission at once, on the basis that we will accept the $7\frac{3}{4}$ cents for our gas on the down stream side of the Royalite scrubbing plant. We will pay the Royalite or the then owner of the scrubbing plant the cost that this Board sets for scrubbing. We will then make our own arrangements. We will then do one of two things. We will abide by any direction of the Board as to the distribution of the remaining amount if they so direct, or alternatively we will make our own arrangements with those affected which would be the producers."

And I should continue to the end of the paragraph:-

"And in most of the cases we already have made arrangements under contract that will fit into that scheme. In those cases where we have no contract they will either be left out of the scheme or make some new arrangement. We are prepared to take that risk."

The important words I think, Mr. Chairman, so far as the producers are concerned are those "we will abide by any direction of the Board as to the distribution of the remaining amount if they so direct."

In other words this position of the entire matter rests with the Board.

MR. HARVIE: That is the remaining amount ?

MR. McDONALD: Yes, the remaining amount means the difference between the scrubbing price and the amount that should be allowed on the 7¾ cents in that specific instance, but I would take that to apply to future years between the price at the scrubbing plant less scrubbing costs.

Now Mr. Donellan was examined at Page 3275, Volume 42. I will read, sir, the discussion at that point. He was being examined by you Mr. Chairman.

"THE CHAIRMAN: The 24th of March. The Board held a meeting on the 29th of March at which all parties were invited to submit proposals, and your proposal was duly submitted and Mr. McCutchin gave it to us on the 1st of April and on the 11th of May Mr. McCutchin gave his evidence. Now, if I appreciate all that you have said, the position of this Board, which made an order predicated upon three things, one of which you are willing to eliminate from your rate base, with the other two remaining, Mr. McCutchin

makes an appraisal and all these things flow from those estimates. Now, we are in the position if we accept your figures which on the face of it appear to be, in my opinion beyond reason, what are we to do ? Are we to pass on to the public the results of that, or are we going to say to your company "You have made a mistake in some places and you should write off your mistakes in the same way." Just in the same way as when I buy stock on the market and it goes down the next day, I take my loss. That is one of my hazards. I am looking for guidance, Mr. Donellan, I am not quarrelling with you.

A-If that was the Board's decision that would be implemented.

Q -Would you smile as cheerfully as you are now if that were so ?

A -No, I would get busy with my pencil."

Now throughout his evidence, Mr. Donellan also stated that the submissions that had been made by Mr. Mc Cutchin had been submitted to Head Office of the British American Company and had been approved and undoubtedly were the submissions of the Company.

MR. HARVIE: I wonder, Mr. McDonald, if you would give me the page in that Volume again ?

MR. McDONALD: The last one was 3275, Volume 42.

Now, sir, the problem since I have introduced the subject, I presume and I feel in this case I should make this plain, that in the extract I have just read, when you, Mr. Chairman, referred to, should this case be passed on to the public, I feel that the producers are to be associated with the consumers as the public referred to therein.

THE CHAIRMAN: I was not thinking of your producers when I asked the question.

MR. McDONALD: I was afraid you were not. That is why I mention it now.

MR. FENERTY: You waited a long time for this.

MR. STEER: Your producers endorsed the construction.

MR. McDONALD: There is no doubt about that and that is why I am dealing with it now. The problem is, should the entire cost be allowed or should some adjustment be made.

(Go to Page 7038)

Now, I feel and I can say that those producers in the most part who were associated with me, and instructed me to support the British American application, feel that the Board can say to the British American Company, "When you submitted the material upon which Order No. 1 was granted by this Board, that material indicated that the cost incurred in the work to be done and authorized by the Board would be within an economic range and the Board was justified in granting the Order for which you asked and which the Board was reluctant to grant. On the other hand the costs amount to a figure which, if adopted by the Board, and a rate of return of 7% net allowed, make the operation of the utility uneconomic from the viewpoint of the consumer and the producer."

Now, if the Board should adopt this attitude, for the reasons which I have mentioned, or for any other reasons which appear reasonable to it, then the question arises what adjustment should be made in the amount of the rate base. Now, in making my adjustments in the manner I did, I did not make them with the intention that that was the only method of approaching it. I made the adjustment more for the purpose of arriving at some reasonable figure or, at least, which I felt was a reasonable figure, and on which I could make representations to the Board for comparative purposes, not only in regard to this problem, but in regard to the entire problem of getting the South End gas to the market at a reasonable cost.

Now, I submit that the Board has a number of choices:

First, to adopt an arbitrary calculation somewhat in line with the submission I have made, that

is, make some allowance for excess costs and add an allowance of 10% for overhead on the over-all amount thus arrived at. I feel that an allowance of 10% overhead would be justified under all the circumstances, and that that is a fair allowance with respect to error and omission which would be granted in any event without question by the Board.

Now, secondly, the Board can allow actual costs of installations and disallow overhead and interest as claimed on the basis that there was an error in the engineering and administration which does not warrant the capitalizing of an allowance of such cost. In other words, assess the costs somewhat on the basis on which they were made, if any.

Now, the third approach the Board can make, is to make an allowance for salvage and allow the recovery by the British American Company of only a proportion of the investment, though allowing a reasonable rate of return on the entire investment as fixed by the Board without regard to the excess costs I have mentioned.

It appears to me that this approach is worthy of consideration if ten years' amortization is allowed. The evidence in the Hearing generally indicates that there will be in the neighbourhood of 5% salvage per line pipe, and indicates that the life of compressing units of a quality and nature installed by the British American, will far exceed ten years. The salvage value of from 25% to 40% may not be out of line.

Now, fourthly, the Board may determine that a fair rate of return to the British American Company is 7% net, and then make a reduction to a figure of say 5%, which will, over ten years, take care of the extra costs of the

installation.

THE CHAIRMAN: Are these alternatives?

MR. McDONALD: Oh yes, Mr.Chairman, I am not suggesting they should all be adopted.

MR.HARVIE: I think there is one there that we will accept.

MR. McDONALD: No, I am suggesting these for the consideration of the Board. I am only going to be a prosecutor, sir, I am not going to be the judge.

In making these submissions, I do not want to be understood as saying that the producers are not now receiving and will receive, and I refer to the producers in the South End, I do not want to be understood as saying that the producers are not now receiving and will receive in the future a very substantial return on account of low pressure gas being picked up and high pressure gas being sold over an extended term of years.

MR.HARVIE: Mr. McDonald, I must have missed what you said there. Will you repeat that?

MR. McDONALD: Yes. In making these submissions I do not want to be understood as saying that the producers are not now receiving and will receive in the future a very substantial return on account of low pressure gas being picked up and high pressure gas being sold over an extended term of years.

In other words, Mr. Chairman, the units installed are doing the job for which they were installed, and, as a result, producers are obtaining what the British American Company told them they would obtain when the representations were made.

On the other hand, I want to emphasize

that a number of the producers unhesitatingly endorsed the British American proposal, favoured the picking up of low pressure gas at the economic prices indicated by the British American submission. I want to point out that the Madison "A" scheme contained provisions which, in a large measure, would have picked up a great deal of the low pressure gas in the South End for many years, true, not below 55 to 60 pounds operating pressure. I am going to state now that in view of the British American submission, I, acting for my own company, did not investigate as fully as I might have, the merits of the proposals by the Madison Company for dealing with low pressure gas in the British American area. And I mean low pressure gas there not below 50 pounds.

In other words, Sir, the proposal submitted by the British American Company was based on costs and indicated a range of prices which made it entirely feasible for the Board to proceed as it did, and made it entirely feasible for the producers to willingly accept the advantages offered and to use their pressure and weight with the Board to have the installations authorized.

Now, Sir, that is all I have with regard to that point. I would like now to spend a minute or so, Sir, explaining Exhibit 187.

Now, Sir, the third sheet showing the calculations of operating costs I have adopted for the year 1945, and direct operating costs, shown in the Exhibit filed by the Company outlinign operations for 1945, that is, Exhibit 164. I then have also adopted the administration and general charges as set out in that exhibit for the year 1945. I calculated depreciation at the adjusted rate base, allowing 10% on a straight line basis per year. I have calculated

the return on capital at the rate of 11.666%. I have included the fuel gas scrubber and have allocated the costs on the same proportions as in 1945, and allocated by the Company. The figures are not identical, but I have used the same proportions. I have carried them up to the low pressure compressor and the high pressure compressor. The water system I have used 25% of the costs and have adopted a proportionate charge of a similar value to the Company.

MR. CHAMBERS: Pardon me, Mr. McDonald, I am asking this just as matter of interest and information, why did you use 10 years for the transmission lines, when one-third of the gas will go through it after the 10 year period. I am only looking for information.

MR. McDONALD: The answer to that, Mr.Chairman, is that I adopted in fairness to the British American Company a liberal attitude with regard to depreciation. I did not have before me the figures which are contained in the exhibit filed yesterday, Exhibit 185, and I do intend to make submissions based on that. This indicates, Mr. Chairman, with regard to depreciation, that the residue gas to market will be 25 billion odd and the residue gas repressured will be 12 billion. Now, we know for certain that the 12 billion will go through the transmission lines and, in addition to that, the balance of the recoverable gas in the area which, on a rough calculation, will be five or six billion feet more, And I would like, after further consideration, to suggest some alteration to the depreciation charges as set down here and as set out by the Company.

Now with regard to 1946:....

THE CHAIRMAN: Before you leave that, Mr. McDonald, how do you allocate your low pressure compressor costs,

from $115,590.00 to $49,862.00?

MR. McDONALD: Well that, Sir, is a fairly long story how I do it.

THE CHAIRMAN: How would you like to tell it to me on Monday morning?

MR. McDONALD: That is what I had in mind, Sir.

MR. HARVIE: Do we have to wait until then?

MR. McDONALD: I have them calculated, Sir. I might, Sir, file this by way of an exhibit.

THE CHAIRMAN: All right.

BRITISH AMERICAN UTILITIES LIMITED
ALLOCATION OF GATHERING COSTS 1945
STATEMENT MARKED EXHIBIT 188.

MR. STEER: Could I have a copy of that?

MR. McDONALD: Yes.

THE CHAIRMAN: We will now adjourn until 10 o'clock Monday morning.

(The Hearing was then adjourned until 10.00 A.M., Monday, June 17th, 1946).